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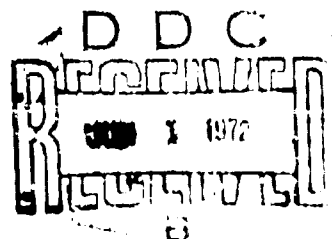
AD 742788

COMPUTER SYSTEM MANUAL
CSM PSM 9A-67
VOLUME II, PART E
29 FEBRUARY 1972

**THE NMCSSC
QUICK-REACTING
GENERAL WAR GAMING
SYSTEM
(QUICK)**

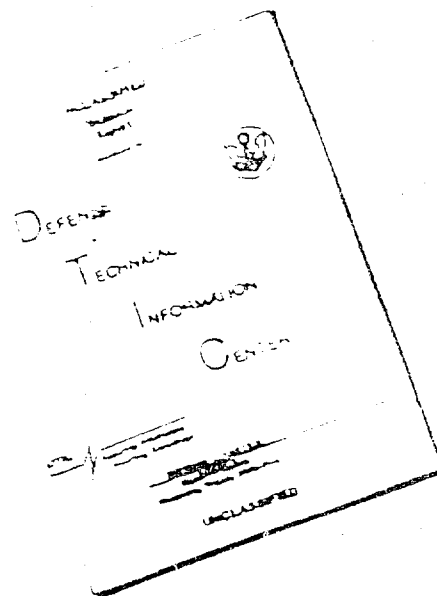
PLAN GENERATION SUBSYSTEM
VOL II - PTD
AD 741926
PROGRAMMING SPECIFICATIONS
MANUAL

NATIONAL TECHNICAL
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13. ABSTRACT This is one of three volumes describing computer programs of the QUICK-Reacting General War Gaming System (QUICK). These volumes complement other NMCSSC Computer System Manuals on QUICK by discussing the programs from a computer programming point of view. This volume, in six parts, concentrates on the Plan Generation Subsystem of QUICK. Other volumes are available for the Input Subsystem and Simulation Subsystem. Collectively, these volumes provide a good basis for maintenance activity on the QUICK System. Based upon a suitable data base, and user control parameters, QUICK will generate individual bomber and missile plans suitable for war gaming. The generated plans are of a form suitable for independent review and revision. Subsequently, execution of the planned events can be simulated. Various statistical summaries can be produced to reflect the results of the war game. A variety of force postures and strategies can be accommodated. QUICK is documented extensively in a set of Computer System Manuals (series 9-67) published by the National Military Command System Support Center (NMCSSC), Defense Communications Agency (DCA), The Pentagon, Washington, DC 20301.			

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NATIONAL MILITARY COMMAND SYSTEM SUPPORT CENTER

Computer System Manual Number CSM PSM 9A-67

29 February 1972

THE NMCSSC QUICK-REACTING GENERAL WAR GAMING SYSTEM (QUICK)

Programming Specifications Manual

Volume II - Plan Generation Subsystem

Part I

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ABSTRACT

The computerized Quick Reacting General War Gaming System (QUICK) will accept input data, automatically generate global strategic nuclear war plans, simulate the planned events, and provide statistical output summaries. QUICK has been programmed in FORTRAN for use on the NWCSSC CDC 3600 computer system.

The QUICK Programming Specifications Manual (PSM) consists of three volumes: Volume I, Data Input Subsystem; Volume II, Plan Generation Subsystem; Volume III, Simulation and Data Output Subsystems. The Programming Specifications Manual complements the other QUICK Computer System Manuals to facilitate maintenance of the war gaming system. This volume, Volume II, provides the programmer/analyst with a technical description of the purpose, functions, general procedures, and programming techniques applicable to the programs of the Plan Generation Subsystem. This volume is in six parts: Parts A and B provide a description of the programs which make up the subsystem; Part C through F contain the associated program listings. Companion documents are:

1. GENERAL DESCRIPTION
Computer System Manual CSM GD 9A-67
A nontechnical description for senior management personnel
2. ANALYTICAL MANUAL
Computer System Manual CSM AM 9A-67 (three volumes)
Provides a description of the system methodology for the nonprogrammer analysts
3. USER'S MANUAL
Computer System Manual CSM UM 9-67
Provides detailed instructions for applications of the system
4. OPERATOR'S MANUAL
Computer System Manual CSM OM 9A-67
Provides instructions and procedures for the computer operators

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PROGRAM FOOTPRINT
CSUMR  FOOTPRINT 1JUN71 *****
C
CUSE  MASTER 1JUN71 *****
COMMON /MASTER/ IDATE, IDENTNO, ICODE, NPTPT, NCPORX, NCPEN,
INRECOVER, NREF, NNDRY, NREG, NTYPE, NGROUP, NIOBASE, NPALOAD,
NASTYPE, NNDTYPE, NTANKAS, NCOMPLEX, NCLASS, NALERT, NTOIS,
NCOPTYPE, NCONRY
CEND  MASTER *****
C
C  USED BY FOOTPRINT, GPRINT
C
C  IDATE  DATE OF RUN
C  IDENTNO  PUN IDENTIFICATION NUMBER
C  ICODE  SIDE
C  NPTPT  NUMBER OF ROUTE POINTS
C  NCPORX  NUMBER OF CORRIDORS
C  NCPEN  NUMBER OF DEPENETRATION POINTS
C  INRECOVER  NUMBER OF RECOVERY POINTS
C  NREF  NUMBER OF REFUELING AREAS
C  NNDRY  NUMBER OF BOUNDARIES
C  NREG  NUMBER OF REGIONS
C  NTYPE  NUMBER OF WEAPON TYPES
C  NGROUP  NUMBER OF WEAPON GROUPS
C  NIOBASE  TOTAL NUMBER OF WEAPON BASES
C  NPALOAD  NUMBER OF WEAPON PAYLOADS
C  NASTYPE  NUMBER OF TYPES OF AIR TO SURFACE MISSILES
C  NNDTYPE  NUMBER OF TYPES OF WARHEADS
C  NTANKAS  NUMBER OF BASES FOR TANKERS
C  NCOMPLEX  NUMBER OF COMPLEX TARGETS
C  NCLASS  NUMBER OF WEAPON CLASSES
C  NALERT  NUMBER OF ALERT STATUSES
C  NTOIS  NUMBER OF TARGETS
C  NCOPTYPE  NUMBER OF TYPES OF CORRIDORS
C
C  NCONRY  NUMBER OF COUNTRY CODE
C *****
CUSF  TAPES 1JUN71 *****
C
COMMON/FILES/ TETFILE(2), NASFILE(2), MSLTIME(2), ALOCTAR(2),
1  TAPALOC(2), ALOCGRP(2), STREFIL(2), EVENTAPE, PLANTAPE
C
TYPE INTER TETFILE, NASFILE, MSLTIME, ALOCTAR, TAPALOC,
1  ALOCGRP, STREFIL, EVENTAPE, PLANTAPE
C
COMMON/SCRATCH/ ISCR, ITARL
C
CEND  TAPES *****
C
C  USED BY FOOTPRINT, NEWCOCK
C
DATA (ISCR = 5), (ITARL = 6)
C
C  BASFIL DATA TAPE FROM PRECOMP

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C TYPALOC OUTPUT FROM ALOCOUT TO THIS PROGRAM
C ISCR SCRATCH FILE USED BY THIS PROGRAM
C ALOCGRP OUTPUT FROM THIS PROGRAM TO POSTALOC
C
C IN ARRAYS, FIRST WORD IS LOGICAL UNIT NUMBER, SECOND WORD IS
C MAXIMUM FILE LENGTH
C
C *****
C
C WPNGRPX 1JUN71 *****
C COMMON /WPNGRPX/ NWPNS(200), NWMGRP(200), WLAT(200), WLONG(200),
C 1 ITYPE(200), IPAY(200), ICLASS(80), ISTWTYPE(40),
C 2 IMIRV(40)
C WPNGRPX *****
C
C USED BY FOOTPRINT, GOPRINT, NEWCORR
C
C NWPNS NUMBER OF WEAPONS IN THE GROUP
C NWMGRP NUMBER OF VEHICLES IN GROUP
C WLAT LATITUDE OF GROUP CENTROID
C WLONG LONGITUDE OF GROUP CENTROID
C ITYPE WEAPON TYPE IN GROUP
C IPAY PAYLOAD INDEX FOR GROUP
C ICLASS CLASS NUMBER FOR TYPE
C ISTWTYPE HOLLERITH NAME FOR TYPE
C IMIRV POINTER TO FOOTPRINT PARAMETER TABLE FOR TYPE
C *****
C
C STKSUM 1JUN71 *****
C COMMON/STKSUM/ KGRUP, NSTRK, NCORR, NSTRK(30), LSTKSUM
C
C STKSUM *****
C
C USED BY FOOTPRINT, GOPRINT, OUTBOOST, PRINTSET
C
C DATA (LSTKSUM = 33)
C
C KGRUP GROUP NUMBER
C NSTRK TOTAL NUMBER OF STRIKES FOR THIS GROUP
C NCORR NUMBER OF CORRIDORS ASSIGNED TO THIS GROUP
C NSTRK NUMBER OF STRIKES ASSIGNED TO EACH CORRIDOR FOR GROUP
C LSTKSUM LENGTH OF STKSUM BLOCK
C *****
C
C RAIRATA 1JUN71 *****
C
C COMMON/ RAIRATA/ NT, JGROUP, JCORR, INDEX(1500), TSTLAT(1000)
C 1 , TSTLONG(1500), RVAL(1500), PLAT(1500), DUMAR(1500)
C 2 , IHAIR, NIMAX, LLEPR(1500)
C
C DIMENSION R(1500), IMETA(1500), IFOR(1500), ITRACK(1500), IOUN(16)
C

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EQUIVALENCE (R. TGTLAT), (TMFIA, TGTLONG), (IFOR, DLAT), (IRACK,
INLONG), (IDUM, INRFX)
C
C TYPE LOGICAL LLFIX
C
COMMON/A/ DESIG(1500), TASK(1500), CNTRYLOC(1500), FLAG(1500)
C
CEN0 RAI DATA *****
C
C USED BY FOOTPRINT, ASSIGN, BOOSTIN, EVAL, GPRINT, INITASGN,
C IMPOT, NEWCOORD, OPTROOST, REMOVE, SKIP, TABLIRPT, RDCARDP
C
C DATA (LRAD = 9003), (NTMAX = 1500)
C
C NT TOTAL NUMBER OF TARGETS ASSIGNED TO THIS CORRIDOR AND
C GROUP
C JGROUP GROUP NUMBER
C JCORR CORRIDOR NUMBER
C INDEX TARGET INDEX NUMBER
C TGTLAT TARGET LATITUDE
C TGTLONG TARGET LONGITUDE
C EVAL RELATIVE VALUE OF THIS TARGET
C DLAT DGZ OFFSET LATITUDE
C DLONG DGZ OFFSET LONGITUDE
C LRAD LENGTH OF RAIDATA BLOCK
C NTMAX MAXIMUM NUMBER OF TARGET ASSIGNMENTS FOR ONE GROUP
C LLFIX FIXED ASSIGNMENT INDICATOR
C
C R DISTANCE FROM GROUP CENTROID TO TARGET
C THETA LAUNCH AZIMUTH OF WEAPON FROM CENTROID TO TARGET
C IFOR FORWARD POINTER FOR ROOSTER ASSIGNMENTS
C IRACK BACKWARD POINTER FOR ROOSTER ASSIGNMENTS
C
C NOTE - TRACK FOR THE FIRST TARGET ASSIGNED TO ROOSTER
C IS SET TO MINUS THE INDEX OF THE TARGET ASSIGNED
C TO THIS ROOSTER WITH THE GREATEST AZIMUTH
C
C DESIG TARGET DESIGNATOR CODE
C TASK TARGET TASK-SUBTASK CODE
C CNTRYLOC TARGET COUNTRY LOCATION CODE
C FLAG TARGET FLAG CODE
C
C *****
C
C CUSE CONTROL 1JUNT *****
C
C COMMON /CONTROL/ NV, NARV, NEXTRA, PEYTRA, NPASS, FRACLOOK,
C 1 MXPFOOT, DELAG, PURGE, PH, PATRAD, NOK
C 2 IGSTART, IGEND *****
C
CEN0 CONTROL *****
C
C USED BY FOOTPRINT, BOOSTIN, EVAL, GPRINT, IMPROVE, INITASGN,
C IMPOT, OPTROOST, PRINTSET, RDCARDP
C
C NV NUMBER OF ROOSTERS FOR THE GROUP
C NARV AVERAGE NUMBER OF TARGETS TO BE ASSIGNED TO EACH ROOSTER
C NEXTRA NUMBER OF ROOSTERS WITH INITIAL ASSIGNMENTS CONTAINING

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C      USED BY FOOTPRINT, ROOSTIN, EVAL, FOOTEST, FUELSAVE, GORPRINT,
C      IMPROVE, OPTBOOST, TEST
C
C      DATA (MAXRV = 20)
C
C      MAXRV  MAXIMUM NUMBER OF RE-ENTRY VEHICLES THAT CAN BE ASSIGNED
C      ISYS   SYSTEM NUMBER
C      NTAR   NUMBER OF RE-ENTRY VEHICLES ASSIGNED
C      RTN    RANGE OF TARGET
C      THIN   AZIMUTH OF TARGET
C      IFEAS   NUMBER OF TARGETS THAT CAN BE HIT WITH FUEL AVAILABLE
C      DELSTRY MAXIMUM ADDITIONAL FLYING DISTANCE ALLOWED IF FIRST
C      TARGET IN FOOTPRINT IS IN RANGE
C      DELCRAFT MAXIMUM ADDITIONAL FLYING DISTANCE ALLOWED IF NEW
C      TARGET IS TO BE ADDED AFTER THIS TARGET IN FOOTPRINT
C      FUELEFT FUEL LEFT AFTER COMPLETION OF WEAPON DELIVERIES
C
C      .....
C      FOOTSAVE 1JUN71 .....
C      COMMON/FOOTSAVE/ IFOTSAVE(20), MMITOLD, WHITOLD, IF2SAVE(20),
C      1 N2SAVE .....
C      FOOTSAVE .....
C      USED BY FOOTPRINT, GORPRINT, OPTBOOST
C
C      IFOTSAVE POTENT INDEX OF TARGETS IN FIRST FOOTPRINT
C      MMITOLD  NUMBER OF TARGETS IN FIRST FOOTPRINT
C      WHITOLD  VALUE OF TARGETS IN FIRST FOOTPRINT
C      IF2SAVE  POTENT INDEX OF TARGETS IN SECOND FOOTPRINT
C      N2SAVE   NUMBER OF TARGETS IN SECOND FOOTPRINT
C
C      .....
C      INDEX 1JUN71 .....
C      COMMON /INDEX/ JINR, JINP, JOUTP, JSAVE(20), NJSAVE,
C      1 JSAVOPT .....
C      INDEX .....
C      USED BY FOOTPRINT, ROOSTIN, GORPRINT, INPOT, OPTBOOST
C
C      JINR  RATIO DATA INDEX OF TARGET TO BE PUT INTO POTENT ARRAYS
C      JINP  POTENT INDEX OF TARGET TO BE PUT INTO POTENT ARRAYS
C      JOUTP RATIO DATA INDEX OF TARGET TO BE TAKEN OUT OF POTENT ARRAYS
C      JSAVE POTENT INDEX OF TARGET TO BE TAKEN OUT OF POTENT ARRAYS
C      NJSAVE POTENT INDEX OF TARGETS BROUGHT IN ON A LOOK-ANEAD
C      JSAVOPT NUMBER OF TARGETS BROUGHT IN ON LOOK-ANEAD
C      ZERO FOR NO LOOK-ANEAD - ONE FOR LOOK-ANEAD
C
C      .....
C      LOADATA 1JUN71 .....
C      COMMON /LOADATA/ LOADOPT, MRVACO(1500), NADDED, MTOACH, MONTARI(20)
C
C      .....
C      1000
C      2000

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C
CEND      LOADATA ..... NADDOLD .....
C
C        USED BY FOOTPRINT, ADDR3, GORPRINT, OPTROOST, TEST, MCCARDF
C
C        DATA (NRVADD = 5NADDON, SHVARIED, 8MMIMLDREF)
C
C        LOADATA  BOOSTER LOADING OPTION
C                  = 0 - FREE LOADINGS
C                  = 1 - ADD RVS TO MEET MINLOD
C                  = 2 - SPECIFIED VARIABLE LOADINGS
C                  = 3 - GUARANTEED MINLOD CONSTRAINT
C
C        NRVADD  NUMBER OF EXTRA WEENTORY VEHICLES ADDED TO THIS TARGET
C        NADDOLD TOTAL NUMBER OF RVS ADDED IN A PASS
C        NTOADD  NUMBER OF RVS TO BE ADDED TO THE CURRENT FOOTPRINT
C        NONTAR  TOTAL NUMBER OF RVS ON EACH TARGET IN MY LIST
C        NADDOLD NUMBER OF RVS ADDED IN FIRST PASS
C
C .....
C
C        PARAMETR IJUN71 .....
C        COMMON /PARAMETR/ MAXSYS, IMNAME(40), MINLOD(40), MAXLOD(40),
C        1 0SPACE(40), THRODMAX(40), MYTYPE(40), IDATA(40)
C
C        PARAMETR .....
C
C        USED BY FOOTPRINT, FOOTEST, GORPRINT, IMPROVE, OPTACOST, TABLMPT
C        TEST
C
C        DATA (MAXSYS = 40), (IMNAME = 40(AMNOT USED))
C
C        MAXSYS  MAXIMUM NUMBER OF SYSTEMS ALLOWED IN FOOTPRINT TABLE
C        IMNAME  HOLLERITH NAME OF MTRV SYSTEM
C        MINLOD  MINIMUM ALLOWED NUMBER OF RVS PER BOOSTER
C        MAXLOD  MAXIMUM NUMBER OF RVS ALLOWED PER BOOSTER
C        0SPACE  MINIMUM SPACING BETWEEN CONSECUTIVE 067MS IN A FOOTPRINT
C        THRODMAX MAXIMUM DISTANCE ONE RV CAN BE CARRIED
C        MYTYPE  FUNCTIONAL FORM DESIGNATOR
C        IDATA   INDEX TO FOOTPRINT PARAMETER DATA SET
C
C .....
C
C        PERFORM IJUN71 .....
C        COMMON /PERFORM/ NASGN, VALASGN, TVAL, POLD, VALOLD
C
C        PERFORM .....
C
C        USED BY FOOTPRINT, ASSIGN, GORPRINT, INITASGN, REMOVE
C
C
C        NASGN  TOTAL NUMBER OF TARGETS ASSIGNED TO BOOSTERS
C        VALASGN TOTAL VALUE OF TARGETS ASSIGNED TO BOOSTERS
C        TVAL   TOTAL VALUE OF ALL TARGETS
C        NOLD   NUMBER OF TARGETS ASSIGNED IN FIRST PASS
C        VALOLD VALUE OF TARGETS ASSIGNED IN FIRST PASS
C
C .....

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PAGE NO.

USED BY FOOTPRINT, ASSIGN, BOOSTIN, EVAL, FOOTPRINT, IMPROVE,
INITASSM, IMPUT, MEXCOG, OPTBOOST, REMOVE

COMMON /2/ OR /2STATUS/

MAXBOOST MAXIMUM NUMBER OF BOOSTERS ALLOWED IN ONE GROUP
IMBOOST MAXIMUM INDEX OF FIRST TARGET ASSIGNED TO BOOSTER
NTH NUMBER OF TARGETS ASSIGNED TO BOOSTER
ISTATUS STATUS OF TARGET, DEFINED AS FOLLOWS
-2 NOT ASSIGNED TO A BOOSTER AND NOT IN POTENT
-1 IN LOST TARGET ARRAY
0 IN POTENT ARRAY

INDEX NUMBER OF BOOSTER TO WHICH TARGET IS ASSIGNED
TEMPORARY STORAGE FOR VARIOUS INDICES DURING PROCESSING

3COMP IJUN71
COMMON /3/ EP1501, TP1501, EVALP501, SIMP1501, COSINES1501,
1 AVOP, AVIMP, PAIT, TPT, SINAV, COSAV, SIMIT, COSIMIT, THOLO
3COND

USED BY FOOTPRINT, BOOSTIN, EVAL, FOOTPRINT, IMPROVE, IMPUT,
OPTBOOST, TEST

COMMON /3/ OR /3COMP/

RP RANGE OF TARGET INDEXED BY POTENT
TP AZIMUTH OF TARGET INDEXED BY POTENT
DVALP RELATIVE VALUE OF TBT INDEXED BY POTENT
SINES SINE OF AZIMUTH INDEXED BY POTENT
COSINES COSINE OF AZIMUTH INDEXED BY POTENT
AVRP AVERAGE RANGE OF ALL POTENTIAL TARGETS
AVIMP AVERAGE AZIMUTH OF ALL POTENTIAL TARGETS
PAIT RANGE OF FIRST TARGET IN FOOTPRINT
TPT AZIMUTH OF FIRST TARGET IN FOOTPRINT
SINAV SINE OF AVERAGE AZIMUTH
COSAV COSINE OF AVERAGE AZIMUTH
SIMIT SINE OF FIRST TARGET AZIMUTH
COSIMIT COSINE OF FIRST TARGET AZIMUTH
THOLO AZIMUTH USED TO COMPUTE ENTRIES IN DISTANCE MATRIX

DERUG IJUN71
COMMON /DEBUB/ TOTAL ICAFROM(20)

ICATA INDEX TO ICAFROM ARRAY
ICAFROM ARRAY CONTAINING COMPLETE SUBROUTINE CALLING SEQUENCE

PRINT IJUN71

C	71900
C	72000
C	73000
C	74000
C	75000
C	76000
C	77000
C	78000
C	79000
C	80000
C	81000
C	82000
C	83000
C	84000
C	85000
C	86000
C	87000
C	88000
C	89000
C	90000
C	91000
C	92000
C	93000
C	94000
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C	97000
C	98000
C	99000
C	100000
C	101000
C	102000
C	103000
C	104000
C	105000
C	106000
C	107000
C	108000
C	109000
C	110000
C	111000
C	112000
C	113000
C	114000
C	115000
C	116000
C	117000
C	118000
C	119000
C	120000
C	121000

[illegible]


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CALL ROARRAY(1CLASS,00)
CALL SKIP( 320)
CALL ROARRAY(1SINTYPE,00)
CALL SKIP( 00)
CALL ROARRAY(1MMS, 000)
CALL SKIP( 200)
CALL ROARRAY(1TYPE,200)
CALL SKIP( 400)
CALL ROARRAY(1PAY,200)
CALL SKIP(0003)
CALL RMCORR 5 PERTR = TWO00
CALL RMCORR 5 EXTRAS = TWO00
CALL TCNTTYPE
ITP = TPALOC(1)
MYIDENT = INTMPALOC
CALL SETREAD
CALL INTTRANS(ALOCGRP(1))
ITP = ALOCGRP(1)
MYIDENT = SHALOCGRP
MYLENGTH = ALOCGRP(2)
CALL SETWRITE
ICALL=1
CALL GORPRINT(1)
ICALL=2
CALL GORPRINT(2)
ICALL=3
CALL GORPRINT(3)
ICALL=4
CALL GORPRINT(4)
50 ITP = TPALOC(1)
CALL ROARRAY(KGROUP,LSTRSUM)
MUMPOST = 1
MCLASS=1
CALL PRINTSFT
ICALL=5
CALL GORPRINT(5)
IF (KGROUP.EQ. 3MEET).OR. (KGROUP.GT. 1000); 9000, 70
C
C
C GET LENGTH OF LOGICAL RECORD
DO 40 I=1,MCORR
40 LLOGICAL=LLOGICAL+((MSTRK(I)-1)/32)+1
IF(MCORR.GT.1)00,100
C
C POWER GROUP WITH MORE THAN ONE CORRIDOR
C
90 ITP = ALOCGRP(1)
CALL ROARRAY(KGROUP,LSTRSUM)
ITP = TPALOC(1)
L = (3+MCCORR) + (15*INTSTRV) + LLOGICAL
CALL TRANSFER(L)
60 TO 50
100 ITP = TPALOC(1)
CALL ROARRAY(NT,3)
IF(JCORR.EQ.0)120,110

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1864

```

      STRES(I)=0.
      COSINES(I)=1.0
      DO 240 J=1,MAXPOT
240  D(I,J)=0.0
      MPRES=MAXPOT
      NHTY=ISS=LOST=NSAVE=JMR =JIMP=0
      JOUTP=JOUTP=JSAVPT=IPOTBT=JAFT=JTGTO=0
      MADDED = MADDED = MOLD = 0
      VALD = 0.0
      C
      C
      C
      FIRST PASS OVER TARGETS
      MPASS=1
      DO 1999 I=1,NV
      MUPROST=1
      CALL PRINTSET
      CALL BOOSTIN
      CALL OPTBOOST
      CALL BOOSTOUT
      CONTINUE
1999  ICALL=11
      CALL GORPINT(19)
      ICALL=12
      CALL GORPINT(14)
      CALL GORPINT(24)
      C
      C
      C
      SAVE THIS PLAN ON SCRATCH TAPE
      MOLD=MASON
      VALD=VALASO
      CALL ORDER(MVAL,I-DEX,NT)
      ASSIGN 2000 TO NEXT
      GO TO 3000
2000  MOLD=MASON
      VALD=VALASO
      ITP=ISCH
      HYDENT = INSCRATCH
      CALL WRARRAY(ITFOR,NT)
      CALL WRARRAY(IIGOST,NV)
      CALL WRARRAY(INTB,NV)
      CALL WRARRA(MRVADO, NT)
      DO 2010 I = 1, NT
2010  MRVADO(I) = 0
      MADDED = MADDED
      MADDED = 0
      CALL TERTAPE
      C
      C
      C
      SECOND PASS OVER TARGETS
      MPASS=2
      DO 2999 I=1,NV
      MUPROST=MV-I+1
      CALL PRINTSET
      CALL BOOSTIN
      CALL OPTBOOST
      CALL BOOSTOUT

```

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2999 CONTINUE
ICALL=11
CALL GORPRINT(1)
ICALL=12
CALL GORPRINT(11)
CALL GORPRINT(12)
ASSIGN 3500 TO NEXT
3000 IF (MASON + MADDEN - NOK) 3044, 3045, 3010
C
C      OMIT LEAST VALUABLE TARGETS IF THERE IS AN EXCESS ASSIGNMENT
C
3010 MONT = MASON + MADDEN - NOK
MONT=0
3020 IF (1.67, MT) 3022, 3026
3022 PRINT 3024
3024 FORMAT(1X,15(1M),27M TOO MANY FIXED ASSIGNMENTS)
MONT = 1
CALL GORPRINT(7)
CALL GORPRINT(12)
CALL GORPRINT(11)
CALL GORPRINT(8)
MONT = 0
GO TO NEXT
3024 J = INDEX(I)
IF (11STATUS(J), LF, 0) .OR. 11FIX(J) 3020, 3030
3030 IF (MT(11STATUS(J)) - MIN(0,11SYS)) 3020, 3020, 3035
3035 MONT = MONT + 1
JGETO = J
CALL REMOVE
IF (MONT - 1, MONT) 3020, 3040
3040 GO TO NEXT
C
C      SAVE POINTERS IN SECOND PLAN
C
3500 DO 3600 I=1,47
3598 1STATUS(I)=IFON(I)
C
C      RETRIEVE GROUP DATA FROM SCRATCH TAPE
C
4000 IF=ISOR
MYIN=1,0,MSCRATCH
CALL SETREAD
CALL ROADRAY(1INDEX,MT)
CALL ROADRAY(1TOTLAT,MT)
CALL ROADRAY(1TOTLONG,MT)
CALL ROADRAY(1RVAL,MT)
CALL ROADRAY(1DLAT,MT)
CALL ROADRAY(1DLONG,MT)
CALL ROADRAY(1INDEX,MT)
CALL REORDER(1INDEX,MT,6,INDEX,1TOTLAT,1TOTLONG,1RVAL,1DLAT,1DLONG,0)
CALL REORDER(1INDEX,MT,4,DESIG,1TASK,1CMTWLOC,1FLD,0,0,0)
C
C      SELECT BETTER PLAN
C

```

```

WFLIGHT1 = 2.0
MP1 = (WEIGHT1 * WOLD) * MADDOLO
MP2 = (WEIGHT1 * MASGN) * MADDOLO
IF (MP1 - MP2) 4030, 4010, 4020
4010 IF (VALASGN - VALOLD) 4020, 4030, 4030
C
C FIRST PLAN IS BETTER
C
4020 ITP=ISCR
MYIDENT = THMSCRATCH
CALL ROARRAY(ISTATUS,MT)
CALL ROARRAY(IROOST,NV)
CALL ROARRAY(INTE,NV)
MASGN=NOLO
VALASGN=VALOLD
CALL ROARRAY(MRVADO, MT)
MADDOLO = MADDOLO
C
C SECOND PLAN IS BETTER
C
4030 ITP=ISCR
MYIDENT = THMSCRATCH
CALL TERTAPE
C
C SET UP PLAN-FIRST ORDER ROOSTERS BY VALUE
C
ICALL = 65
CALL GPRINT(22)
DO 4060 I=1,NV
D(1)=0.0
J=IROOST(I)
IF (J) 4060, 4060, 4040
4040 K=INT(I)
DO 4050 K=1,M
D(1) = D(1) - RVAL(J) * (MRVADO(J) * 1)
4050 J=ISTATUS(J)
4060 CONTINUE
CALL ORDER(D,INDEX,NV)
C
C MOD SET UP PLAN BY ORDERING STRIKES
C
LASTRY = 1
DO 4090 II = 1, NV
I = INDEX(II)
J=IROOST(I)
IF (J) 4090, 4090, 4070
4070 INDEX(J) = INDEX(J)
INC = 1000. * II
AMTR(I)
K = 0
DO 4080 KK = 1, N
K = K + 1
L = ISTATUS(J)
ISTATUS(J) = INC * K
C
C ADD EXTRA RVS NEEDED TO MEET MINLOAD

```

```

C
  IF (NRVADO(J)) 4080, 4081, 4071
4071 MTOADO = NRVADO(J)
  INED = FABSF(INDEX(J))
  K = K - 1
  INED2 = INC * K
  DO 4074 LLL = 1, MTOADO
  FTM AVAILABLE CELL
  DO 4072 LL = LASTRY, NT
  IF (ISTATUS(LLL)) 4072, 4073, 4072
4072 CONTINUE
  GO TO 4080
4073 LLL = LL
  LASTRY = LLL + 1
  NTR(I) = NTR(I) + 1
  INDEX(LLL) = INED
  TGLAT(LLL) = TGLAT(J)
  TGLONG(LLL) = TGLONG(J)
  RVAL(LLL) = RVAL(J)
  CLAT(LLL) = CLAT(J)
  CLONG(LLL) = CLONG(J)
  DESIG(LLL) = DESIG(J)
  TASK(LLL) = TASK(J)
  CNTRYLOC(LLL) = CNTRYLOC(J)
  FLAG(LLL) = FLAG(J)
  LLFIX(LLL) = 0
4074 ISTATUS(LLL) = INED2
4080 J = L
4081 CONTINUE
  CALL COMINT(22)
  LARGE=10000000000
  DO 4110 I=1,NT
  IF (ISTATUS(I)) 4100, 4100, 4110
4100 ISTATUS(I)=LARGE
4110 CONTINUE
  CALL OMFR(ISTATUS, INDEX, NT)
  CALL REORDER(INDEX, NT, 6, INDEX, TGLAT, TGLONG, RVAL, CLAT, CLONG, 0)
  CALL REORDER(INDEX, NT, 4, DESIG, TASK, CNTRYLOC, FLAG, 0, 0, 0)
  CALL INFORMER(INDEX, NT, LLFIX)
C
  OUTPUT PLAN
C
5000 NT = NSTRK = NSTRK(I) = HASGM + MADNEO
  ITP = ALOCSP(I)
  CALL WRBARAY(KGROUP, LSTRKSUM)
  ICALL=9
  CALL COMINT(5)
  CALL WRBARAY(NT, 3)
  CALL WRBARAY(I, TX, NT)
  CALL WRBARAY(TGLAT, NT)
  CALL WRBARAY(TGLONG, NT)
  CALL WRBARAY(RVAL, NT)
  CALL WRBARAY(CLAT, NT)
  CALL WRBARAY(CLONG, NT)
  LOGICAL = (NT - 1) / 32 + 1

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FT45.5

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```
CALL WRARRAY(ULFIX, LOGICAL)
CALL WRARRAY(DESIG, NT)
CALL WRARRAY(TASK, NT)
CALL WRARRAY(ENTRYLOC, NT)
CALL WRARRAY(FLAG, NT)
ICALL = 15
CALL ENDPRINT(2)
GO TO 50
```

C

```
9900 KGROUP=34507
ITP = ALLOC(1)
CALL WRARRAY(KGROUP, LSTRDSUM)
ITP = TPALOC(1)
CALL TERM TAP
ITP = ALLOC(1)
CALL TERM TAP
PRINT 9001
PRINT 9002
9901 PRINT 9002
9902 FORMAT(43# '***** PROCESSOR FOOTPRINT COMPLETED *****')
WRITE(44,9902)
INT=INT+1
STOP
END
```

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PROGRAM LENGTH	ENTRY POINTS	BLOCK NAMES
10	1	1
20	2	2
30	3	3
40	4	4
50	5	5
60	6	6
70	7	7
80	8	8
90	9	9
100	10	10
110	11	11
120	12	12
130	13	13
140	14	14
150	15	15
160	16	16
170	17	17
180	18	18
190	19	19
200	20	20
210	21	21
220	22	22
230	23	23
240	24	24
250	25	25
260	26	26
270	27	27
280	28	28
290	29	29
300	30	30
310	31	31
320	32	32
330	33	33
340	34	34
350	35	35
360	36	36
370	37	37
380	38	38
390	39	39
400	40	40
410	41	41
420	42	42
430	43	43
440	44	44
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460	46	46
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590	59	59
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630	63	63
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650	65	65
660	66	66
670	67	67
680	68	68
690	69	69
700	70	70
710	71	71
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730	73	73
740	74	74
750	75	75
760	76	76
770	77	77
780	78	78
790	79	79
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810	81	81
820	82	82
830	83	83
840	84	84
850	85	85
860	86	86
870	87	87
880	88	88
890	89	89
900	90	90
910	91	91
920	92	92
930	93	93
940	94	94
950	95	95
960	96	96
970	97	97
980	98	98
990	99	99
1000	100	100

INDEX FOOTNOTES

02430
C0161

00027
00020
00002
02570
00042
21534
13568
00016
00005
00004
00102
00037
00032
C2764

00093
00704
C5126
B7641
00403
00025
00002
00001
00001
00012
00014
00010

FOOTPRINT
MASTER
FILES
TSCATCH
WINGBOX
STRKSUM
RAINATA
4
CONTROL
DSQUARE
EARTH
FOOTFO
FOOTSAFE
INDEX
LOADATA
PARAMETR
PERFORM
POTENT
RANGE
VALPALM
UPNTGT
1
2
3
DEBBUG
PRINT
ITP
TWORO
MYXENT
MYXPRMT
IFILPMT
FILAPFL
MYLAREL
QREENTRY
THEMO.
QEDSTOPS
Q109218C
Q1095188
Q1095188
Q1016188
Q1004188
Q3010848
Q800CTC
VFOOTPRN
STORAGE
INITAPE
ADCAROF
PRINTSET
SETINEAC
ROADRRAY
SKIP
ROADRNO

EXTERNAL SYMBOLS

Q80ENTRY
THEMO.
Q80STOPS
Q1002100
Q1005100
Q1010100
Q1000000
Q1004100
Q3010000
Q000ICT.
V00TPRN
STORAGE
INITYPE
ACCAROF
PRIN1SEY
SETMEAG
ROADRAY
SKIP
RDNRN

5.4TS FOOTPRINT

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ED

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TERMTAPE
INITRANS
SETWRITE
GODPOINT
WRAPRAY
TRANSFER
VALF
SETDATA
MFCOOR
INITASCM
RPOSTIN
OP1-POST
RPOSTOUT
ORDER
REMOVE
REORDER
LREORDER
MINIF
MAXIF
STH
OP/SINGEL

5-ATS FOOTPRINT

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C00450 AGE	00002	01144	00353	00357	00357	00355	00357	00357	00351
C00012 ALCCOP	00352	00353	00353	00357	00357	00355	00357	00357	00351
	02134	02135	02231	02242	02242	02242	02242	02242	02242
C00066 ALCCAR	00743	00752	00752	00752	00752	00752	00752	00752	00752
P02376 ALPH	00713	00716	00716	00716	00716	00716	00716	00716	00716
C00372 AVRP									
C00373 AVTWP									
C00002 BASFILE									
X00036 BOOSTIM	01226	01342	01342	01342	01342	01342	01342	01342	01342
X00040 BOOSTUNT	01237	01346	01346	01346	01346	01346	01346	01346	01346
C00000 CD2									
C00470 CMTALOC	01024	01562	02031	02032	02121	02215	02215	02215	02215
P02276 CMTAL1.	00260	00242	00553	00554	00554	00554	00554	00554	00554
C00377 COSAV									
C00310 COSIMES	01157	01160	01160	01160	01160	01160	01160	01160	01160
C00401 COSING-IT									
C00226 COSTEFF	01123	01124	01073	01074	01115	01116	01116	01116	01116
P02377 COUNT.	00443	00441	01073	02072	02073	02262	02262	02262	02262
	01510	01672	00637	01421	02254	02262	02262	02262	02262
	00245	00541							
P00033 CMT.									
C00000 CROSSMAN	01167	01170	01657	01660	01704	01704	01704	01704	01704
C00252 D	00009	00644							
C00003 DEFALTY	00001	00644							
C00001 DEATORAL	00644	00644							
C00002 DEL2									
C00007 DELAGE	00644	00644							
C00007 DELPIM									
C00055 DELRAFT									
C00054 DELRSTBY									
C00000 DELSIC									
P00001 DICT.									
C10016	01016	01541	02027	02027	02030	02120	02120	02120	02120
C00163	00163	00174	00176	00176	00207	00211	00211	00211	00211
C00251	00251	00254	00257	00257	00265	00270	00273	00273	00273
C00312	00312	00315	00320	00320	00326	00331	00335	00335	00335
C00406	00406	00372	00372	00372	00397	00415	00421	00421	00421
C00515	00515	00524	00556	00556	00564	00573	00580	00580	00580
C00715	00715	00724	00764	00763	00770	00773	00776	00776	00776
C00815	00815	00826	00826	00826	00833	00837	00840	00840	00840
C00903	00903	01104	01107	01107	01122	01131	01133	01133	01133
C01275	01275	01300	01303	01304	01324	01341	01345	01347	01347
C01344	01344	01415	01420	01424	01427	01432	01435	01437	01437
C01531	01531	01534	01537	01540	01545	01550	01557	01557	01557
C01644	01644	01650	01720	02000	02103	02147	02110	02125	02140
C02253	02253	02154	02161	02164	02167	02172	02203	02206	02217
C02274	02274	02234	02261	02265	02250	02253	02250	02250	02250
C01005	01005	01001	01549	01549	02025	02025	02113	02175	02175
C01010	01010	01064	01543	01545	02026	02026	02114	02173	02173
C00440	00440	00644	00644	00712	00712	00712	00712	00712	00712
C00403	00403	00644	00644						
C00405	00405	00645	00645						
C00267	00267	02214	02214						
C00234	00234	00234	00234						
C00014	00014	00014	00014						
C00000	00000	00000	00000						
C00012	00012	00012	00012						

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EO 0

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0122 02220

02122 02220

02033 02032

02023 02027

01563 02032

01027 01563

-JAG24 FLAG

00161 FOOTPRINT

00170 FOOTPRINT

01641

00233 FUELLEFT

00546 00546

00623 00623

01613

00244 00244

00254 00254

00262 00262

01356

00334 00334

00441 00441

01227 01227

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02013 02013

01301 01301

00363 00363

01838

00172 00172

00274 00274

01121 01121

01274

01117 01117

01142 01142

00427 00427

00532

00253 00253

01124 01124

00001 00001

01725

00264 00264

00541 00541

01421 01421

01164

01744 01744

00771 00771

01770 01770

01772

01774 01774

00230 00230

00241 00241

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5.415 FOOTPRINT

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C00000	INITIATE	00206							
X00015	INITIATE	01106							
X00035	INITIATE	01106							
X00025	INITIATE	00359							
C00006	INITIATE								
C00001	INITIATE								
C00004	INSECR								
C00005	INSECR								
C00006	INVERSE								
P02405	INIT	01464	01467	01474					
C00000	INIT	00166	00171	00171	02270	02271			
C01750	IPAV	00124	00536	00404					
C00002	IPCI	01134	01137						
C00000	IPOTET	01205							
C00000	ISCC	01035	01035	01267	01270	01514	01612	01612	01637
C00002	ISIDE	00407							
C00000	ISITYPE	00302	00416	00417	00433	00433			
C01751	ISITYPE	01447	01450	01457	01512	01512	01707	01707	01757
C00001	ISYS	01761	01762	02003	02037	02040	02074	02100	02104
		00610	00618	00613	00627	00627	00637	00661	00662
		01463	01463						00764
C00001	IT-EL	00230	00237						
P02406	IT-EL	00221	00222	00343	00354	00354	00405	00456	00463
C00000	ITP	00403	00400	00510	00518	00520	00562	00572	00572
		00764	00766	01036	01270	01271	01515	01613	01640
		01640	02135	02136	02232	02237	02243		
C00000	ITVORN	00316	00611	00611	00621	00621			
P00233	ITVORN	00232							
P00477	ITVORN	00453	00454						
P00467	ITVORN	00504							
P00531	ITVORN	00506							
P00535	ITVORN	00533							
P00543	ITVORN								
P00546	ITVORN	00655							
P00561	ITVORN	00534							
P00563	ITVORN	00544	00542	00542					
P00620	ITVORN	00617							
P00637	ITVORN	00654							
P00656	ITVORN								
P00744	ITVORN								
P01234	ITVORN	00744	00745						
P00755	ITVORN	01263							
P01265	ITVORN								
P01317	ITVORN								
P00762	ITVORN								
P01077	ITVORN								
P01126	ITVORN								
P01167	ITVORN								
P01350	ITVORN								
P00250	ITVORN	00231							
P01372	ITVORN	01264							
P01376	ITVORN								

11/24/71 0 0 PAGE NO. 27

[illegible]

11/24/71

```

SUBROUTINE ADDOV
  CS=RR      ADDR= 1JUN71
  C          ADDS REFENTRY VEHICLES TO TARGETS ALREADY IN THE FOOTPRINT IN
  C          ORDER TO MEET THE MINLOAD CONSTRAINT
  C
  CUSE       FOOTIC 1JUN71
  C          COMMON /FOOTIC/ MAXPV, ISVS, NPAR, RIN(20), TWIN(20), IFEAS,
  C          1 PERSIST, DELCRAFT(20), FUELEFT
  CEND
  CUSE       FOOTIC
  C          COMMON /FOOTIC/ MAXPV, ISVS, NPAR, RIN(20), TWIN(20), IFEAS,
  C          1 PERSIST, DELCRAFT(20), FUELEFT
  C
  C          COMMON /LOADATA/ LOADOPT, MRVADO(1500), MARNED, NTOADO, MONTARI(20)
  C          1, NADDOCU
  C
  C          LOADATA
  C          PARAMETR 1JUN71
  C          COMMON /PARAMETR/ MAXSYS, IPRNAME(40), MINLOAD(40), MAXLOAD(40),
  C          1 OSPACE(40), THROUWAR(40), WTYPE(40), IDATA(40)
  C          PARAMETR
  C          POTENT 1JUN71
  C          COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), MMIT, IMIT(20), TOTLV(20)
  C          1, MMISS, MISS(40), MREFE, ICFREE(50), MLOST, LOST(50), INVERSE(50)
  C          2, AGE(50)
  C
  CEND
  CUSE       POTENT
  C          COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), MMIT, IMIT(20), TOTLV(20)
  C          1, MMISS, MISS(40), MREFE, ICFREE(50), MLOST, LOST(50), INVERSE(50)
  C          2, AGE(50)
  C
  C          3COMP 1JUN71
  C          COMMON /3/ RP(50), YP(50), RVALP(50), SIMFS(50), COSINES(50),
  C          1 AVOP, AVIMP, WMIT, TMIT, SIMAV, COSAV, SIMMIT, COSTMIT, TMOLD
  C          3COMP
  C          DEBUG 1JUN71
  C          COMMON /DEBUG/ IOTA, ICAPFROM(20)
  C          DEBUG
  C          PRINT 1JUN71
  C          COMMON /PRINT/ ICALL, IMUST
  C          PRINT
  C
  C          IOTA = IOTA + 1
  C          ICAPFROM(IOTA) = SHADDOV
  C          ICALL = 24
  C          CALL GOMPRINT(13)
  C
  C          IF (MMIT) 1000, 1000, 5
  C          5 ICANT = 0
  C          DO 70 I = 1, NMIT
  C          70 MONTARI(I) = 1
  C          NTOADO = MINLOC(ISVS) - MMIT
  C
  C          PUT AS MANY AS POSSIBLE ON THE FIRST TARGET
  C
  C          10 IF (INTADO) 900, 900, 20
  C          20 J = IMIT(1)
  C          R1 = RP(J)
  C          T1 = TP(J)
  C          ICALL = 71
  C          CALL GOMPRINT(13)
  C          DO 30 I = 1, NTOADO

```


FTMS.5

ICALL = 75
CALL GORINT(24)
CALL EORINT(13)
1000 IOTA = IOTA - 1
RETURN
END

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PAGE NO.

146000
147000
148000
149000
150000
151000

1884

S.415 ADDR

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PAGE NO.

5

ITEM ADDR

BRASS
86022

PROGRAM LENGTH-
ENTRY POINTS ADDR
P-Code Names

FOOTIC 00102
LOATA 02704
PARAMETER 09431
POTEST 00532
3 00403
FELUG 03025
PRIN 00002

EXTERNAL SYMBOLS

THE
GRODCT.
GCRINT
FROTEST
ST-.

[illegible]

5.475

ADORY

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EO

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PAGE NO.

7

P00061	-20	00061	00167	00167	00212	00236	00251	00304	00306	00306
P00356	-200	00354								
P00104	-30									
P00125	-40									
P00041	-5									
P00150	-50	00146								
P00154	-60	00146	00147							
P00050	-70									
P00161	-80	00157	00157							
P00170	-90									
P00370	-900	00060	00060	00167	00212	00236	00251	00304	00306	00306
P00405	-910									
P00433	-ERASEP.	00163	00165	00166						
P00003	-100000	00030								
P00004	-151	00256								
P00046	J	00062	00063	00110	00312	00320	00404	00407		
P00047	K	00121	00123	00127	00306	00321	00322	00324	00327	00335
		00353	00401	00402						
		00172	00213	00217						
		00220	00223							
P00450	LASTT									
P00451	LL									
C00000	LOADOPT									
C00304	LOST									
C00001	MAXMIT									
C00121	MAXLOAD									
C00000	MAXPOT									
C00000	MAXRV									
C00000	MAXSYS									
C00051	MINLOAD	00054	00054							
C00136	MISS									
C00311	MTYPE	00370	00370	00371						
C02735	NADOER									
C02763	NADOOLN									
C00220	NAPREF	00037	00037	00043	00055	00110	00111	00103	00164	00170
C00064	NAPIT	00170	00333	00333	00374					
C00303	NLOST									
C00135	NMISS									
P00452	NN									
C02737	NONTAR									
		00314	00314	00154	00195	00204	00204	00215	00215	00216
		00050	00051	00206	00235	00236	00241	00242	00243	00247
		00270	00271	00276	00276	00277	00313	00313	00357	00360
		00362	00362	00363	00405					
		00407	00410							
C00001	NEWARD	00134	00134	00336	00336					
C00002	NTAR	00056	00056	00057	00057					
C02736	NTODNO	00155	00161	00161						
		00000	00023							
		00005	00102							
X00002	OP-PROJECT.									
P00453	P1									
C00370	PMT									
C00003	RIN	00103	00103	00124	00325	00325				
C00000	RP	00063	00064	00122	00323	00323				
C00000	RVALP									
C00370	SINAV									
C00220	SIMES									

S-4TS

ADDRV

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8

C00400 SIMPLY
 X00005 STM.
 P00456 YI
 X00001 TMCME.
 C00027 TWIN
 C00375 TWIT
 C00402 TMOLO
 C00241 TMOOMAX
 C00111 TOFLY
 C00062 TP
 P00053 TS00001.
 P00107 TS00002.
 P00133 TS00003.
 P00210 TS00004.
 P00232 TS00005.
 P00333 TS00006.
 P00332 TS00007.
 P00412 TS00010.
 P00050 TS00001.
 P00102 TS00002.
 P00114 TS00003.
 P00203 TS00004.
 P00223 TS00005.
 P00310 TS00006.
 P00321 TS00007.
 P00400 TS00010.
 00175 SYMMALS

00254
 00067
 00257
 00105

00104

00105
 00130
 00130
 00130
 00130
 00330

00005
 00045
 00077
 00112
 00207
 00222
 00307
 00317
 00374
 00052
 00106
 00137
 00211
 00233
 00334
 00331
 00411

00066

00334

```

SUBROUTINE ASSIG
  CSUBR      ASSIG  IJUNT1
  CUSE      RAIDATA  IJUNT1
  CUSE      COMMON/ RAIDATA/ WT, JGROUP, JCOM, INDEX(1500), TOTLAT(1500)
  1          . YSLONG(1500), YVAL(1500), PLAT(1500), DLOM(1500)
  2          . LRAID, NTRAX, LLFIX(1500)
  C
  C DIMENSION R(1500), YMET(1500), IFOR(1500), IBACK(1500), IDUM(10)
  C EQUIVALENCE (R, TOTLAT), (YMET, YSLONG), (IFOR, PLAT), (IBACK,
  C ILOM), (IDUM, INDEX)
  C
  C TYPE LOGICAL LLFIX
  C
  C COMMON/ DESIR(1500), TASK(1500), CTRYLOC(1500), FLA(1500)
  C
  C RAIDATA
  C PERFORM IJUNT1
  C COMMON /PERFORM/ NISN, VALASH, TVAL, NOLD, VALBL
  C PERFORM
  C POTENT IJUNT1
  C COMMON /POTENT/ MAPOT, MAPIT, IPOT(50), MMT, IMT(20), TOTLY(20)
  1, MISS(50), MPRE, IPRE(50), MLOST, LOST(50), INVERSE(50)
  2, AGE(50)
  C POTENT
  C MAPIT IJUNT1
  C COMMON /MAPIT/ IPOT1, JPT, JPTB, MAPMOOST
  C MAPIT
  C STATUS IJUNT1
  C
  C COMMON/ 2/ MAPMOOST, IMOOST(50), NTR(50)
  1          , ISTATUS(1500), MEX(1500)
  C
  C DIMENSION MOEXVAL(50), MOEXR(50), NOXT(50)
  C
  C EQUIVALENCE (MOEX, MOEXVAL), (MOEX(10), MOEXR), (MOEX(20), NOXT)
  C
  C STATUS
  C DEBUS IJUNT1
  C COMMON /DEBUS/ IOTA, ICAMPROM(20)
  C DEBUS
  C PRINT IJUNT1
  C COMMON /PRINT/ ICALL, IMUST
  C PRINT
  C
  C ASSIGN ENTIRE HIT LIST TO BOOSTER NUMMOOST
  C
  C TOTAMOTA=1
  C ICAMPROM(IOTA)=MISSION
  C ICALL=21
  C CALL COMPRINT(10)
  C
  C IF (IMT(1920-900.100)
  100  NO=NUMMOOST

```

```

NTR(MB)=MBIT
ITOP=IPOT(ITMT(1))
I0005T(MB)=ITOP
IFOR(ITOP)=1
ISTATUS(ITOP)=NR
VALASMB=VALASMB+RYAL(ITOP)
ITEST=ITOP
LAST=ITOP
DO 116 1=2,MBIT
  J=IPOT(ITMT(1))
  IFOR(J)=J
  ITEST=MIN(I0005T(MB),ITEST)
  ISTATUS(J)=MB
  IFOR(LAST)=J
  I0005T(J)=LAST
  IFOR(J)=1
  VALASMB=VALASMB+RYAL(J)
  LAST=J
116 I0005T(J)=ITEST
  N0005T(MB)=MBIT
  I0005T(J)=38
  CALL G00PRINT(16)
  CALL G00PRINT(8)
  I0005T(J)=42
  CALL G00PRINT(11)
  I0005T(J)=52
  CALL G00PRINT(14)
  I0005T(J)=1
  RETURN
END

```

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5-475 ASSIGN

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

ASSIGN

RAIOATA
4
PERFORM
POTENT
MPMTST
2
DEBAG
PRINT

EXTERNAL SYMBOLS
ORDDICT.
GDDPRINT
XINIMOF

00161
00004

21534
13560
04005
00532
00004
07641
00025
09002

IDENT

ASSIGN

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ED

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PAGE NO.

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E

C00450	AGE					
P00064	ASSIGN	07004				
P00135	BEIN.	00137				
C05670	CHRYLOC					
P00151	COUNT.	00053	00054			
C00008	DESE	00004	00017	00064	00114	00115
P00001	DICT.					
C13543	DLAT					
C16517	DLONG					
P00140	ENDIME.	00007	00134	00135	00136	00136
P00000	ENT.	00142				
C10024	FLAG					
P00003	FORMA.	00012				
P00002	FORMA.	00016				
P00152	I	00113	00114	00115	00127	
C16517	IBACK	00050	00054	00105	00104	
C00001	IBOGST	00074	00074	00105	00104	
C00000	ICALL	00035	00035	00112	00121	00122
C00001	ICAMPROM	00015	00015	00112	00121	00126
C00003	IDOM	00016				
C13543	IFDM	00037	00040	00072	00072	00075
C04221	IFREE	00030	00030	00055	00055	
C00005	IMIT	00030	00030	00055	00055	
C00001	IMUST					
C00003	INDEX	00007				
P00135	INITIAL.					
C00364	INVERSE	00010	00010	00011	00013	00013
C00000	IOFA	00033	00033	00061	00061	
C00002	IPOT					
C00000	IPOTOT	00041	00042	00047	00076	
C01751	ISTATUS	00046	00045	00046	00104	
P00153	ITEST	00054	00054	00054	00054	
P00154	ITOP	00054	00054	00054	00054	
P00023	-100					
P00101	-110					
P00121	-090	00022	00022			
P00003	-1100000	00012				
P00143	-1111111.	00032	00032	00037	00057	
P00155	J	00061	00062	00067	00071	00101
C00001	JAPT					
C00002	JCON					
C00001	JGROUP					
P00154	JLAST	00047	00071	00073	00102	
C00002	JTOTO					
C21455	LLFIX					
C00304	LOST					
C21453	LRALO					
C00000	MAXBOOST					
C00001	MAXMIT					
C00003	MAXPOT					
C00134	MIS	00104	00107	00110	00111	
C00000	MZSOM	00024	00024	00061	00061	
P00157	MS					
C04705	MOEN					

SATS

ASSIGN

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5

C05051 NOEXR
 C05215 NOEXY
 C04705 NOEXVAL
 P03160 KIBJ
 C00220 MFRFE
 C00064 MHTT
 C00303 MLOS
 C00135 MMISS
 C00003 MOLD
 C00000 NT
 C00705 MTR
 C21454 MTRAK
 C00003 MUPPOOST
 C00001 M20ICT.
 C02737 R
 C10027 RVAL
 C02734 TASH
 C02737 TOTLAT
 C05073 TOT.OMG
 C05073 TNETA
 C00111 TNFLY
 P00104 TS00001.
 C00002 TVAL
 C00001 VALAGRM
 C00004 VALOLO
 P00055 W500001.
 K00003 WML00P
 00121 SYMBCL5

00062 00065

00021 00021 00025 00051 00051 00107 00110

00027 00027

00023 00023

00000 00005

00043 00044 00077 00077

00052

00042 00043 00044 00045 00076 00076 00100 00100

00103

00063

11/24/71

```

SUMROUTIME ROOSTIN
CSUBR  ROOSTIN 7SEP71 .....
C      RAINDATA 1JUN71 .....
C      COMMON/ RAINDATA/ NT, JRC'IP, JCORR, INDEX(1500), TOTLAT(1400)
1      , TOTLONG(1500), NYAL(1500), PLAT(1500), DLONG(1500)
2      , LRAID, MINAX, LLSIX(1500)
C
C      DIMENSION R(1500), IMETA(1500), IFOR(1500), IBACK(1500), IDUM(16)
C      EQUIVALENCE (R, TOTLAT), (IMETA, TOTLONG), (IFOR, PLAT), (IBACK,
IDLONG), (IDUM, INDEX)
C
C      TYPE LOGICAL ALFIX
C
COMMON/4/ DESIG(1500), IASX(1500), CTRYLOC(1500), FLAG(1500)
C
C      RAINDATA 1JUN71 .....
C      COMMON /CONTROL/ NV, NARY, NEXTRA, PEXTRA, MPASS, FRACLONG,
1      MAXFOOT, DELAGE, PARGE, PM, EXTRAR, NOX
2      , IYART, ICEMO
C
C      CONTROL .....
C      DSQUARE 1JUN71 .....
COMMON /DSQUARE/ C02, U02, DPL2, RZ2, WYN
C
C      DSQUARE .....
C      FOOTID 1JUN71 .....
COMMON /FOOTID/ MAXRV, ISVS, NPAR, MIN(20), IMIN(20), IPEAS,
1      DELNSTRT, DELRAFT(20), FUELEFT
C
C      FOOTID .....
INDEX 1JUN71 .....
COMMON /INDEX/ JINR, JIMO, JOUTR, JSAVE(20), NJSAVE,
1      JSAPCOY
C
INDEX .....
PARAMETER 1JUL71 .....
COMMON /PARAMETER/ MAXSYS, INAME(40), MINLOAD(40), MAXLOAD(40),
1      DSPACE(40), TWOMIN(20), MTYPE(40), IDATA(40)
C
PARAMETER .....
POTENT 1JUN71 .....
COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(40), WPLY, IMY(20), TOPLY(20)
1      , WHISS, MISS(50), WFREE, IFREE(50), WLOST, LOST(50), WVERSE(50)
2      , AGE(50)
C
POTENT .....
RANGE 1JUN71 .....
COMMON /RANGE/ CROSSCAN, UPDOWN, DELMIN, DEFALT
C
RANGE .....
VALPAR 1JUN71 .....
COMMON /VALPAR/ DZ, TNZ, SLZ
C
VALPAR .....
MPATBT 1JUN71 .....
COMMON /MPATBT/ IMPTBT, JAPT, JTOT, MRCOST
C
MPATBT .....
IEVAL 1JUN71 .....
COMMON /I/ VAL(50), JAFTR(50), VALFTEST(50), COSTEFF(24),
1      I(50, 50)

```



```

IF (NOROP .LE. NARV) 155, 103
103 NOROP = NOROP + 2*JRE
IF (MISS.LE.8) 155, 105
105 DO 119 I=1,NJSAVE
  JDOT=JSAVE(I)
119 D(JDOT,NOROP)=1.E+300
DO 120 IF=1,NMISS
  JMISS(I)=I
120 VAL(I)=D(J,J)
CALL ORDER(VAL,NORVAL,NMISS)
DO 125 I=1,NMISS
125 NORXVAL(I) = MISS(NORXVAL(I))
  NOROP=8
130 DO 150 I=1,NOROP
  IDROP=INOROP+1
  J = NORXVAL(IDROP)
  IF (D(J,J).GE.1.E+300) 170, 140
140 JOUTP=J
  CALL OUTPOT
  ICALL=03
  CALL GPRINT(11)
150 CONTINUE
C
C
C DROP MORE TARGETS IF NEEDED
155 IF (FREE.LT.NMIN) 140, 200
160 IF (MISS.GT.8) 100, 170
170 PRINT 171
171 FORMAT(//1X,15(1H0),44H NOT ENOUGH ROOM IN POTENTIAL TARGET ARRAYS
      1, 15(1H0))
  IMUST=2
  CALL GPRINT(16)
  CALL GPRINT(18)
  CALL GPRINT(11)
  IMUST=0
  STOP
180 NOROP=1
  GO TO 130
C
C
C BRING IN TARGETS FOR THIS BOOSTER
200 DO 210 I=1,NJSAVE
210 JSAVE(I)=0
  NJSAVE=0
  J=BOOST(NR)
  NVENTR(NP)
DO 220 I=1,NRV
  JIND=J
  J=JFOR(J)
220 CALL IMPOT
C
C
C NOW ADD LOST TARGETS FROM END OF LIST
NADO=JMIN/J(FREE,MLOST)
CJ 240 I=1,NADO
  JIND=LOST(MLOST)

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C NOTE THAT TARGETS REMAIN IN ARRAYS FOR THE BOOSTER PROCESSED
C IMMEDIATELY AFTER THE ONE WHICH ENTERED THEM IN THE ARRAYS
C

```

DELIN = -1. / DEL2
DO 340 KI=1,NMISS
  J1=MISS(KI)
  D(J1,J2) = 1.E+10
  IF (AGE(J1) .LE. 1.00) 340 324
324 TDOWN = DELIN
  DO 330 K1=1,NMISS
    J2=MISS(K1)
    IF (J2 - J2) 321, 322, 323
321 FLY = ARSF(D(J1,J2)) * COS2 * D(J2,J1)
    GO TO 330
322 FLY = DEL2
    GO TO 330
323 FLY = ARSF(D(J2,J1)) * COS2 * D(J1,J2)
330 TDOWN = TDOWN + RVALP(J2) / FLY
    D(J1,J1)=TDOWN/SEC(J1)
340 AGE(J1)=AGE(J1)+DELAG
    ICALL=66
    CALL GORPRINT(20)
  C
  C COMPUTE VALFIRST & TAY
  C
  DO 400 KI=1,NMISS
    J=J1(KI)
    LPTDOWN=LPTDOWN+(IS * RP(J).TP(J).MARV)
    CROSSDOWN=CROSSDOWN+(IS * RP(J).TP(J).MARV)
    TDOWN = RVALP(J) * (1.0 - VMIN)
    SINEX = SINES(J)
    COSX=COSINES(J)
    DO 390 KII=1,NMISS
      K=KSS(KII)
      DOWNT = RP(K) * (COSA * COSINES(K) + SINEX * SINES(K)) - RP(J)
      IF (DOWNT)358,359,360
350 DOWNT= DOWNT+LPTDOWN
360 DOWNT = DOWNT * DOWNT
      TOST = RP(K) * (SINEX * COSINES(K) - COSX * SINES(K)) * CROSSDOWN
      DOWNT = DOWNT * TOST * TDIST
      IF (DOWNT - DEL2) 370, 370, 380
370 TDOWN = TDOWN + VMIN * RVALP(K)
      GO TO 390
380 IF (DOWNT - DZ2) 385, 390, 390
385 ALPHA = SCRTF(DOWNT) / DZ
      TDOWN = TDOWN + VALF(ALPHA, TAY2) * RVALP(K)
390 CONTINUE
      VAL(KI) = -TDOWN
400 VALFIRST(J)=TDOWN
      CALL GORER(VA * NOEXVAL, NMISS)
      ICALL=66
      CALL GORPRINT(11)
      INTA=INTA-1
      RETURN
    END

```

5.ATS BOOSTIN

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EY 0

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BOOSTIN

IDENT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

61356	BOOSTIN
00050	
21534	RAIDATA
13560	4
00816	CONTROL
00805	OSQUARE
03102	FOOTIO
00832	INDEX
00431	PARAMETR
00532	POTENY
00884	RANGE
00802	VALPARM
00800	WPMGT
05156	1
07641	2
00403	3
00025	DEPUS
00802	PRINC

EXTERNAL SYMBOLS

YMEND.
CIR10108
OROSTOPS
01005108
O'AOICT.
GAPRINT
GAPRER
OUTROT
IMPOT
CRSTODWN
UP10000W
VAF
XKZNGF
SORTF
SIMP
COSF
SYN.
SLO.
005140L.

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C00450 AGE	00711	00765	00766	00772	00772	00774	00774		
P01313 ALPHA	01124								
C00372 AVRP	00505	00520	00551	00540					
C00373 AVTMO	00504	00533	00533	00535	00540	00552	00561	00571	00571
P01264 BEGIN.	01266								
P00060 BOOSTIN	00060								
C00000 CD.	00554	00730	00734	00752	00752				
C00070 JMTYLOC									
P01262 CMVRT1.	00144								
C00377 COSAV	00543	00616	00620	00627	00632	00652	00661		
X00020 CGSF	00541								
C00310 COSIMFS	00620	00627	00650	00650	00657	01041	01054	01054	01073
	01073								
C00401 COSIMMIT	00506								
C00226 COSTEFF									
P01314 COSX	01042	01053	01075						
P01315 COUNT.	00220	00221	00235	00257	00243	00346	00367	00457	00515
	00516	00610	00612	00723	01044	01050			
P00003 COST.	00153	00340							
C00000 CROSSDOWN	00553	00554	01032	01032	01100	01191			
X00012 CPSTOOWM	00547	01026							
C00232 D	00226	00243	00243	00303	00304	00602	00602	00637	00644
	00644	00645	00670	00707	00707	00733	00733	00740	00747
	00747	00754	00754	00776					
C00003 DEFAULT									
C00002 DEL2	00676	00743	00743	01104	01104				
C00007 DELAGE	00773								
P01316 DELIN	00677	00715							
C00002 DELMIN									
C00005 DELRAFT									
C00024 DELSTRAT									
C00000 DESIG									
P00001 DICT.									
	00662	00673	00141	00147	00152	00312	00316	00334	00343
	00346	00351	00354	00415	00423	00430	00472	00475	00537
	00542	00550	00557	00567	01003	01017	01122	01126	01154
C12043 DLAT									
C10517 DLOW									
P01317 DOWNT	01062	01065	01067	01070	01071	01103	01103	01114	01120
C00171 DSPACE									
C00000 DZ	01123	01123							
C00003 DZ2	01115	01115							
P01267 ENDING.	00003	00356	01100	01204	01205	01205			
P00000 EXIV.	01271								
C00012 EXTRAS									
C10024 FLAG									
P01320 FLY	00742	00744	00756	00761					
P00003 FORMAT.	00066								
C00005 FRACLOOK									
C00101 FUELEFT									
P00153 0000000.	00137								
P00340 0000001.	00332								
X00004 00PRINT	00072								
P01321 I	00214	00253	00260	00272	00320	00347	00401	00416	00420
	00443	00453	00520	00522	00527	00577	00611	00616	00620

5.4TS ROOSTIN

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C00017	IBACK	00115	00115	00123	00123	00375	00376	00545	01600	01601	01151
C00001	IMOST	00112	00112	00120	00120	00467	00470				
C00000	ICALL	00071	00071	00313	00314						
		01152									
C00001	ICAMPROM	00070									
C00361	IDATA	00270	00275	00276	00277						
P01322	IDROP										
C00002	IDOM										
C00053	IFEAS	00110	00116	00125							
P01323	IFIRST	00411	00411								
C13363	IFOR										
C00221	IFREE										
C00015	IGENO	00100									
P01324	IGOTO.										
C00014	IGSTANT										
C00005	INIT										
C00001	IMAME										
P01325	ILAST	00124	00105								
C00001	IMUST	00360	00361	00393							
P01163	IM80004.	00226	01251								
P01164	IM80010.	00242	00203	01173	01210						
P01165	IM80015.	00601	01214	01227							
P01166	IM80017.	00637	00843	01170	01207	01212	01224				
P01167	IM80020.	00667	01173	01205	01213	01226					
P01170	IM80021.	00706	00767	01241							
P01171	IM80024.	00732	00753	01234	01262						
P01172	IM80025.	00737	00746	01240	01260						
C00003	INDEX										
P01204	INITIAL.	00063									
XC-011	IMPOT	00410	00441								
C00366	INTERSE										
C00000	IOA	00064	00064	00065	00067	00067	01156	01156	01156	01157	
C00002	IPUT										
C00000	IPOT8T										
P01326	IS	00546	00551	00560	01020	01030					
C011751	ISTATUS	00131	00131	00162	00162	00436	00437				
C00001	ISYS	00543	00544								
P01327	IT	02332	00233								
P00102	.10										
P00107	.100	00101	00104	00155							
P00201	.103	00260									
P00213	.105	00212									
P00225	.110										
P00242	.120										
P00261	.125										
P00271	.130	00360									
P00307	.140	00304									
P00320	.150										
P00324	.155	01177	00200	00211	00212						
P00327	.160										
P00332	.170	00305	00306	00330	00331						
P00357	.180	00331									
P00105	.20	00104									
P00361	.200	00325	00326								

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P00370	.218								
P00414	.220								
P00441	.238	00440							
P00443	.240	00440							
P00461	.254								
P00107	.30								
P00527	.310								
P00443	.312	00442							
P00546	.314	00641	00642						
P00671	.320								
P00732	.321	00730							
P00743	.322	00730							
P00746	.323	00731							
P00715	.324	00713							
P00757	.330	00742	00745						
P00771	.340	00713	00714						
P01065	.350	01063							
P01074	.356	01063	01064						
P01147	.373	01145	01105						
P01114	.380	01106							
P01120	.385	01116							
P01133	.390	01113	01117						
P00111	.40	00106							
P01137	.400								
P00117	.45	00110							
P00133	.50								
P00137	.46								
P00156	.70	00136	00136						
P00163	.80	00132							
P01273	.FRASER.	00621	00624	00626	00630	00633	00635	00651	00654
		00663	00735	00741	00751	00755	01235	01060	01074
		00666							01077
P00003	..100009								
P00035	..1171	00335							
P00004	..61	00142							
P01272	..MSYIFF.	00114	00114	00122	00122	00263	00263	00443	00443
P01028	..200001.	01014	01015						
P01030	..700002.	01024	01025						
P01230	J	00125	00134	00156	00161	00163	00240	00307	00406
		00412	00511	00516	00614	00617	00647	00656	00656
		00704	00710	00727	00745	00771	01213	01047	01148
		00725	00727	00757	01295				01202
P01331	J1								
P01332	J2								
C00001	JAFY								
C00042	JAFYR								
C00002	JACOR								
C00001	JACOR								
C00001	JIMP								
C00000	JIMP								
C00003	JOUTP	00407	00407	00432	00431	00435	00436		
C00002	JOUTR	00310	00310						
P01333	JOUT								
C01004	JSAWE	00223	01245						
C00031	JSAVORT	00222	00222	00370	00371				
C00002	JT670	00167	00170						
P01334	K	01052	01053	01072	01110	01130			

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X00002	21010100	00206							
X00005	00001CT.	00000							
X00003	00057005	00355							
X00023	00010000	01161							
C02737	R	00510							
C00374	RMIT	00476							
C00003	RIN	01013							
C00000	RP	00476							
C10027	RVAL	00760							
C00144	RVALP	00540							
C00376	SINAV	00423							
C00226	SINCS	001345							
P01345	SINEX	00317							
X00317	SINEX	00536							
C00400	SINEX	00307							
X00422	SLO.	00146							
C00002	SLZ	01121							
X00016	SORTF	00140							
X00021	SYM.	00636							
C02734	TASK	00716							
P01344	TDIS								
P01347	TDOWN								
C02737	TGILAT								
C05473	TGLOMG								
X00001	TMCNO.								
C00473	TMETA								
C00027	TMIN								
C00375	TMIT								
C00402	TMOLO								
C00241	TMOUWAX								
C00001	TNZ								
C00111	TDFLY								
C00062	TP								
P00165	TS00001.								
P00231	TS00002.								
P00244	TS00003.								
P00267	TS00004.								
P00322	TS00005.								
P00373	TS00006.								
P00420	TS00007.								
P00445	TS00010.								
P00467	TS00011.								
P00535	TS00012.								
P00573	TS00013.								
P00672	TS00014.								
P00776	TS00015.								
P00764	TS00016.								
P01143	TS00017.								
P01134	TS00020.								
C00001	UC2								
P01201	UP00000.								
P01220	UP00001.								

P01232	UP00014.	00600	01214	01221	01222	01223	01230	01230
P01244	UP00015.	00705	01233	01234	01235	01242	01242	
P01254	UP00016.	00824	01245	01246	01247	01251	01252	
C00001	UP00000	00726	01255	01256	01257	01262	01263	
X00013	UP00000	00542	00542	00543	01022	01022	01046	01046
C00000	VAL	00356	01016					
X00014	VALF	00244	00250	01135	01136	01147		
C00144	VALF1051	01125						
C00024	W1K	01148	01161					
P00130	WS00001.	01034	01034	01107	01107			
P00222	WS00002.	00166	C0166					
P00237	WS00003.	00230						
P00261	WS00004.	00245						
P00275	WS00005.	00266						
P00370	WS00006.	00323	00323					
P00406	WS00007.	00372	00421					
P00431	WS00008.	00446	00446					
P00461	WS00011.	00666						
P00517	WS00012.	00534						
P00575	WS00013.	00674	00674					
P00613	WS00014.	00671						
P00702	WS00015.	00777	00777					
P00724	WS00016.	00763						
P01007	WS00017.	01144	01144					
P01051	WS00020.	01133						
X00015	X01005	00422						
	00426 SYMBOLS							

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```

SUBROUTINE BOOSTOUT
  BOOSTOUT IJUNT1
  C
  CUSE
    POTENT IJUNT1
    COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), NMIT, IMIT(20), IOTLY(20)
    1) NMIS, MISS(50), MPREE, IPREE(50), MLOST, LOST(50), INVERSE(50)
    2) AGE(50)
  CEND
  CUSE
    POTENT
    LEVAL IJUNT1
    COMMON /I/ VAL(50), JAFTR(50), VALFIR(50), COSTEFF(20),
    1 D(50, 50)
  CEND
  CUSE
    LEVAL
    3COMP IJUNT1
    COMMON /3/ RP(50), TP(50), RVALP(50), SINES(50), COSINES(50),
    1 AVDP, AVTAP, NMIT, IMIT, SINAV, COSAV, SINMIT, COSMIT, TMOLD
    3COMP
  CEND
  CUSE
    DEBUG IJUNT1
    COMMON /DEBUG/ IOTA, ICAMFROM(20)
    DEBUG
  CEND
  CUSE
    PRINT IJUNT1
    COMMON /PRINT/ ICALL, IMUST
    PRINT
  C
  C REMOVES TARGETS FROM HIT LIST AND RETURN INDICES TO USE
  C
  C IOTA=IOTA+1
  ICAMFROM(IOTA)=SMROOSTOUT
  ICALL=18
  CALL GPRINT(10)
  C
  C GET BOOSTER ASSIGNMENT ENTERED
  C
  C CALL ASSIG
  C
  C RESET INDICES
  C
  C
  DO 10 I=1, NMIT
    J=INIT(1)
    AGE(J)=0.0
    INVERSE(J)=0
    VALFIRST(J)=0
    JAFTR(J)=-1
    RP(J)=TP(J)=RVALP(J)=SINES(J)=0.0
    COSINES(J)=1.0
    IPOT(J)=0
    MPREE=MPREE+1
    10 IFREE(MPREE)=J
    NMIT=0
  ICALL=17
  CALL GPRINT(11)
  IOTA=IOTA-1
  RETURN
END

```

5.4TS BOOSTOUT

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ED

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IDENT BOOSTOUT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00100
00004

BOOSTOUT

POTENT

00532

1

05156

3

00483

DEBUG

00025

PRINT

00002

EXTERNAL SYMBOLS

ORGNCT.

GOPRINT

ASSIGN

1907

5.ATS BOOSTOUT

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C00450 AGE	00034	00034			
X00003 ASSIGA	00021				
C00372 AVRP					
C00373 AVTHP					
P00066 MERIN.	00067				
P00004 BOOSTOUT	00004				
C00377 COSAV					
C00318 COSIMS	00044	00045			
C00401 COSTIMIT					
C00226 COSTEFF					
P00075 COUNT.	00027	00030			
C00252 D					
P00001 DICT.	00006	00017	00022	00001	
P00070 EMOING.	00007	00065	00066	00067	
P00000 EXIT.	00071				
P00003 FORMAT.	00012				
X00002 COPYINT	00016	00060			
P00076 I	00024	00027			
C00000 ICALL	00015	00015	00057	00057	
C00001 ICAMFROM	00014				
C00221 I'DEE	00053				
C00065 IMIT	00031				
C00001 IMOST					
P00066 INITIAL.	00007				
C00366 INVERSE	00035				
C00030 IOTA	00010				
C00032 IPOT	00046				
P00051 -19					
P00003 --100000	00012				
P00077 J	00033	00051			
C00062 AFTER	00033				
C00304 LOST					
C00001 NAMEIT					
C00000 MARKDOT					
C00136 MISS					
C00220 M'DEE	00047	00053	00052	00052	
C00064 M'IT	00024	00025	00055	00056	
C00303 MLOST					
C00135 MISS					
X00001 ORONICT.	00003	00005			
C00374 ORIT					
C00000 RP	00043				
C00144 RVALP	00042				
C00374 SINAV					
C00226 SIMES	00041	00041			
C00000 SIMMIT					
C00375 TMIT					
C00402 THOLD					
C00111 TFLY					
C00002 TP	00042				
P00055 TS00001.	00026				
C00000 VAL					
C00104 VALFIRST	00036	00037			
P00031 VS00001.	00054				
00066 SYM2LS					

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```

SUBROUTINE CMKSEQ
C
CUSE 1JUN71
COMMON /FOOTIO/ MAXQV, ISYS, NTA, RIN(20), IPEAS,
1 RELSTRT, DELRAFT(20), FUELEFT
C
CUSE 1JUN71
COMMON /POTENT/ MAXPOT, MAXHIT, IPOI(50), NMHT, IMIT(20), TOWLY(20)
1, AMISS, MISS(50), MFREE, IFREE(50), WLOST, LOST(50), INTHSE(50)
2, AGE(50)
C
CUSE 1JUN71
COMMON /PNTGT/ IPOI(50), JAFI, JTSTO, MUMBOC
1, VAL(50), JAFI(50), VAL(50), VAL(50), COSTEFF(20)
C
CUSE 1JUN71
COMMON /DERUG/ IOTA, ICAMRGM(20)
C
CUSE 1JUN71
COMMON /PRINT/ ICALL, IMUST
C
C
C
CHECK SEQUENCE OF TARGETS IN MHT LSY
C
C
C
IOTA=IOTA+1
ICAMRGM(IOTA)=MCMKSEQ
ICALL=24
CALL SOPRINT(IOTA)
C
C
C
IOTA = 0
IF (IMHT.LE.11999.10)
10 ICHANGE = 0
N = NMHT - 1
I = 0
DO 70 IT=1,N
DELTA=0
J=IMIT(IT)
K=IMIT(IT+1)
IF (IT.EC.1130.20)
20 I=IMIT(IT+1)
DELTA=FLVDIST(I,K)-FLVDIST(I,J)+DELTA
30 IF (IT.EQ.N)50.40
40 L=IMIT(IT+2)
DELTA=DELTA+FLVDIST(J,L)-FLVDIST(K,L)
50 DELTA=DELTA+FLVDIST(K,J)-FLVDIST(J,K)
IF (DELTA.LT. .501)60.70
60 IF (IPE) 61. 61. 65
62 IPE = 0
ICALL = 63
CALL SOPRINT(11)
65 ICHANGE = ICHANGE + 1
PSAVE = FUELEFT

```


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```

JAFT=M
IPCTST=M
COSTSAVE = COSTEFF(I).
CALL MISSIT
CALL MITT
CALL TEST
IF (FUELEFT - FSAVE) 66. 6. 67
66 CALL MISSIT
JAFT = I
CALL MITT
ICHANGE = ICHANGE - 1
GO TO 70
67 COSTEFF(INVERSE(J)) = COSTSAVE
ICALL = 63
CALL GPRINT(11)
70 CONTINUE
IF (ICHANGE -GT. 0) 10. 990
990 IOTA=IOTA-1
RETURN
END

```

```

40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000
58000
59000

```

SATS

CHKSEQ

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ED

C

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IDENT

CHKSEQ

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

CHKSEQ

FOOT10

PATENT

WENTGT

1

DEBUG

PRINT

EXTERNAL SYMBOLS

ORODICI,

GOPRINT

FLYDISH

MISSIT

WITT

TEST

00231

00104

09102

00532

00004

05156

00026

00022

5.4TS

CHKSEC

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EO 0

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PO226 K	00002	00052	00075	00102	00107	00130
PO227 L	00066	00071	00075			
CO2304 LOST						
CO0001 MAX-IT						
CO0000 MAXBOT						
CO0000 MAXDV						
CO0134 MISS						
X00004 MISSIT	00137	00151				
PO0230 N	00031	00062	00175			
CO0220 MFECE						
CO0044 NHIT	00022	00023	00027	00030		
CO0033 NLOST						
CO0135 NMIS						
CO0002 NTAB						
CO0003 NUMEROUS						
X00001 ORCICIC.	00000	00005				
CO0003 QIN						
X00004 TEST	00143					
CO0027 THIN						
CO0111 TQPLY						
PO0175 TS00001.	00034					
CO0000 VAL						
CO0144 VALFIRST						
PO0035 WS00001.	00174	00176				
00115 SYMBOLS						

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FTNS.5

RETURN
END

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2

37000
38000

1915

5.ATS CRSTODUN

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EO 0

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3

CRSTODUN

IDENT

00260
00022
00072
00106
00013

CRSTODUN
F00T0ATA
SMRT0AT
PENARD

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

EXTERNAL SYMBOLS

02007111
TWENO.
0000101.
SINF
MAAF
EAPF
STM.
0051NBL.

5.ATS CRYSTOGEN

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C00020 ALPMA1						
C00040 ALPMA2						
C00008 ALPMAZ						
P00003 AZ	00036	00057				
P00164 BEGIN.	00226	00235	00241			
C00100 REIA1						
C00120 RETA2						
C00060 RETAZ						
P00144 CNVRT1.	00135					
C00061 COME	00111	00112				
P00093 CRFT.	00140					
P00022 CRYSTOGEN	00022					
C00065 CYMC	00107	00110				
C00060 DEMOM	00070	00071				
P00001 DICT.	00074	00061	00074	00100	00106	00132 00137 00167 00170
C00163 DOME						
C00144 DZERO						
P00227 ENCLING.	00025	00114	00127	00141	00164	00165 00166 00167 00168
C00054 EOME	00103	00103				
C00056 EYMC	00102	00102				
P00090 EXIT.	00233					
X00004 EXPF	00105					
P00003 F00WAT.						
P00026 F00001.	00174	00177				
P00026 F00002.	00216	00217				
P00044 F000003.	00224	00225				
P00057 F000004.	00220	00221				
P00067 F000005.	00210	00211				
P00115 F000006.	00204	00207				
P00115 F000007.	00204	00205				
P00123 F000010.	00217	00213				
P00134 F000011.	00203	00201				
P00250 G	00167	00113				
C00000 GAS						
P00244 GETPL.	00171	00202	00222			
P00234 GETPU.	00174	00214	00243			
P00140 G000000.	00130					
C00161 GOME	00122	00123				
C00170 GTWO	00120	00120				
C00162 GZERO	00125	00126				
P00003 I	00024	00134				
P00251 I0010.	00027	00045				
P00145 IN00001.	00063	00153	00162			
P00164 INITIAL.	00025					
P00033 -1000	00030	00032				
P00041 -1010						
P00044 -1020	00040	00040				
P00050 -1100	00046	00047				
P00130 -11000	00032					
P00054 -1200	00047					
P00057 -1900	00053					
P00115 -2000	00031					
P00245 -EPASER.	00104	00122	00125			
P00003 --110001	00134					


```

COMMON/ 2/ MAYROOST, IROOST(500), NTR(500)
1  , ISTATUS(1500), MOEX(1500)
C
C   DIMENSION MOEXVAL(50), MOEIR(50), MDEXT(50)
C
C   EQUIVALENCE (INDEX, MOEXVAL, (MOEX(10)), MOEIR(10)), (MOEX(20)), MDEXT(
C
C   ZSTATUS
C   3COMP 1JUN71
C   COMMON /3/ RP(50), TP(50), RVALP(50), SINES(50), COSINES(50),
1  AVRP, AVTMP, RMIT, THIT, SINAV, COSAV, SINMIT, COSMIT, TMOLD
C   3COMP
C   DEBUG 1JUN71
C   COMMON /DEBUG/ IOTA, ICAMFROM(20)
C   DEBUG
C   PRINT 1JUN71
C   COMMON /PRINT/ ICALL, IMUS
C   PRINT
C
C   DIMENSION IVAL(50)
C   EQUIVALENCE (IVAL, VAL)
C   DATA IAZDIFF / .01)
C   DIMENSION DEN(20)
C
C   ENTRY EVAL
C   IOTA=IOTA+1
C   ICAMFROM(IOTA)=BMEVAL
C   ICALL=30
C   CALL GPRINT(10)
C   ICSAVE = 54
C
C   1000 IS = MTYPE(15VS)
C   IF (NMIS) 9000, 9000, 1005
C   1005 IF (NMIT.LT.1) 1010, 1020
C   1010 RE=AVRP
C   TE=AVTMP
C   MV=HARY
C   BC TO 1030
C   1020 RE=RMIT
C   TE=THIT
C   MV=NMIT+1
C   1030 CROSSDOWN=CROSSDOWN(15,RE,TE,MV)
C   UPDOWN=UPDOWN(15,RE,TE,MV)
C   CD2 = CROSSDOWN * CROSSDOWN
C   UD2 = UPDOWN * UPDOWN
C
C   FIND SEQUENCE FOR NEW TARGET AND VALUE
C
C   F4 = INZ * SZ * NMIT
C   DO 1040 I = 1, NMIT
C   DCM(I) = 1. / DELRAFT(I)
C   DSEM = 1. / DELRSTRT
C   CALL CHMSCO
C   DO 1200 II=1,NMISS
C   J = MISS(II)
C   IF (NMIT.LT.1) 1180, 1200

```

```

1100 JAFTER(J) = 0
      OMAX = 0Z
      GO TO 1245
1200 JAF = -1
      OMAX = 0.
      FMAX = 0.
      L=INIT(1)
      DELT=DELSTRT-FLYDIST(J,L)
      FTEST = DEFT * OSEN
      IF (FTEST .GT. FMAX) 1210, 1220
1210 JAF=0
      OMAX=OLEFT
      FMAX = FTEST
1220 M=NNIT-1
      DO 1240 I=1,M
        K=L
        L=INIT(1+1)
        DELT=DELSTRT(I)-(FLYDIST(K,J)+FLYDIST(J,L)-TOFLY(I))
        FTEST = DEFT * DEN(I)
        IF (FTEST .GT. FMAX) 1230, 1240
1230 JAF=K
      OMAX=OLEFT
      FMAX = FTEST
1240 CONTINUE
      DELT=DELSTRT(MM1)-FLYDIST(L,J)
      FTEST = DEFT * DEN(MM1)
      IF (FTEST .GT. FMAX) 1250, 1260
1250 JAF=L
      OMAX=OLEFT
1260 JAFTER(J)=JAF
      TV = 0.0
      IF (JAF .LT. 0) 1280, 1265
1265 TV = RVALP(J) * (1.0 - VALF(DELMIN/OMAX, FN))
      GO 1270 IF = 1, NM1SS
      F=MISS(IJ)
      ALPHA=FLYDIST(J,K)/OMAX
1270 TV = TV + VALF(ALPHA, FN) * RVALP(K)
1280 VAL(I)=TV
      CALL ORDER(VAL,NDCEVAL,NM1SS)
      DO 1290 I=1,NM1SS
1290 VAL(I)=VAL(I)
      ICALL = ICSAVE
      CALL GOPRINT(15)
      ICALL=SY
      CALL GOPRINT(9)
      IOTA=IOTA-1
      RETURN
C
      ENTRY REVAL
      IOTA=IOTA-1
      ICAMFROM(IOTA)=REVAL
      ICALL =31
      CALL GOPRINT(10)
C
      RECOMPUTE ALL PARAMETERS
      IF(INIT.LY.1)1000,10

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SALES	FILE	11/24/71	FT	2	PAGE NO.	7
00001	10000000					
00002	10000000					
00003	10000000					
00004	10000000					
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00006	10000000					
00007	10000000					
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00009	10000000					
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00216	10000					

S.SATS	FVAL	11/20/71	FD	0	PAGE NO.
X00001	51004100				
X00002	500100				
C00003	500000				
C00004	500000				
C00005	500000				
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C00096	500000				</

S.ATS

EVAL

BCR444 MS00007.
P31467 MS00010.
P00001 MS00011.
00323 SYMBOLS

00451
00562
00557
00562

11/26/71

ED

C

PAGE NO.

10

1929

S.ATS FLYDIST

P. J. 3000 LENGTH
ENTRY PRINTS
BLOCK NAMES

FLYDIST

DSQUARE
RANGE

EXTERNAL SYMBOLS
1

00152
00003

00005
00004
05156

IDENT

FLYDIST

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ED

0

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5.4TS FLYLIST

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P01104 BEGIN.	00133	00137	00037	
C00000 C02	00027	00037	00037	
C00224 COSTEFF				
P01144 C0055	00040	00050		
C00000 C0055000				
C00224 C	00016	00020	00020	
P00145 R1	00025	00036		
P00145 R2	00026	00035		
C00013 REFAMT				
C00012 DELP	00051			
C00002 BELMIA	00032			
P00001 DICT.	00055	00107	00110	
P00147 D00N	00036	00041	00044	
C00003 R22				
P00124 FADING.	00034	00054	00104	
P00000 EXIT.				
P00003 FLYLIST				
P00007 F000001.	00117			
C00012 F000002.	00123			
P00142 GETPL.	00111	00120		
P00132 GETPL.	00111	00136		
P00150 I	00010	00022	00064	
P00060 I000001.	00014	00067	00102	
P00061 I000002.	00017	00071	00100	
P00194 INITIAL.	00034			
P00025 J10	00023			
P00032 J20	00023	00052	00052	
P00035 J30	00024			
P00041 J40	00031			
P00044 J50	00042			
P00047 J60	00042	00043		
P00053 J70				
P00151 J	00013	00022	00075	
C00062 JAFTEP				
P00003 M	00012			
P00003 N	00017			
P00120 P000002.	00015			
P00124 P000003.	00011			
X00001 C0001C.	00017	00004		
X00002 S001F	00014			
C00001 U02	00045			
P00063 UP00000.	00011	00065	00066	
P00074 UP00001.	00011	00076	00077	
C00001 UP0000N	00014	00075	00102	
C00000 VAL			00071	
C00144 VALFIRST			00072	
P00057 VALUE.			00103	
C00004 VALN				
	00033	00056	00130	

00060 SYMBOLS

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```

SUBROUTINE FOTEST
  CSUBR      FOOTEST  LJUN71
  C
  C TEST FOOTPRINT FEASIBILITY
  C
  CUSE
  COMMON /FOOTIO/ MAXPV, ISYS, NBAR, RYN(20), TYN(20), IFFAS,
  1 PERSYST, DELTAFT(20), FUELEFT
  CEND
  CUSE
  COMMON /PARAMETR/ MAXSYS, INNAME(40), MINLOAD(40), MAXLOAD(40),
  1 RSPACE(40), THROMAX(40), MTYPE(40), LOATA(40)
  CEND
  CUSE
  COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), NMIT, IMIT(20), TOFLY(20)
  1, NMIS, MISS(50), NREFE, IREFE(50), NLOST, LOST(50), INVERSE(50)
  2, AGE(50)
  CEND
  CUSE
  COMMON /RANGE/ CROSSDOWN, UPDOWN, DELMIN, DEFAULT
  1, VAL(50), VAL(50), JASTER(50), VALFIRST(50), COSTEFF(20),
  1 C(50, 50)
  CEND
  CUSE
  COMMON /FOOTDATA/ GAS(20), RX(20), RAX(20,2), TOSSCI(20,2), TASSC2(20,2),
  1 TEFW(20,2), TEFW2(20,2), TFMOM(20), TFMOM2(20,2), RADN(20,2), EDNE(20,2),
  2, FTW(20), DENOM, CONE(20,2), CTW(20,2), LLNGOAT
  C
  CCOMMON /SPRTDATA/ ALPHAZ(10), ALPHAI(10), ALPHAZ2(10), RETAZ(10), RETAI
  1, L(10), RETAP(10), MAXPRST(10), GTMO, GOME, GZERO, GUME, GYERNO, LSWTDAY
  C
  C TYPE REAL MAXPRST
  C
  CCOMMON /PRNACD/ TOTFUEL, SRF(10), SRF2(20), SRFEXP(10), SRFEXP2(20)
  1, SRFEXP2(20), SRFREN, LPENPAT
  C
  C
  C DATA (LLNGOAT = 57)
  1, (LSHTRAT = 117)
  2, (LPENPAT = 67)
  C
  C
  C FOOTDATA
  C
  C DIMENSION HOLD(10), AZOLD(10), CSAVE(10), TGAIS(10),
  1 PRMSAVE(20), REASAVE(20,2), PSASVE(20,2),
  2, DIMENSION CH(20), EXTRA(20), OT(20)
  3, EQUIVALENCE(OT, TOTFLY)
  4, DATA (EDSTLON = .00000001),
  5, (TREF = 0), (HOLD = 10(.00000001)), (AZOLD = 10(.00000001))
  6, DATA (D-TFF = .001)
  C
  C EPSILO/ MINIMUM DELCRAFT
  C
  C DDIFF/ MAXIMUM FRACTIONAL DIFFERENCE BETWEEN SUCCESSIVE RANGES

```


1934

1935

11/26/71

```

2120 EXCESS=TIME-FX
IF EXCESS.LT.0.10999*2030
2130 IF EXCESS=0
  MOVE MV=1
  NTGOTO=1
  DO 2150 I=1,MN
    CR(I)=CSAVE(NTGOTO)
    EXTRA(I)=OT(I)/CR(I)
  IF (EXCESS - EXTRA(I)) 1365, 2040, 2040
2140 EXCESS=EXCESS-EXTRA(I)
IF EXCESS=0
2150 NTGOTO=NTGOTO-1
C
C   DETERMINE USE OF EXCESS FUEL
C
2160 FUEL=EXCESS
IF (MV .LT. MAXLOC(155)) 2170, 10999
2170 MV = 155 - 1
  NTGOTO=155
  MOVE MV=1
  EXCESS = EXCESS - (TOTIME - TBAS(MV))
  FUEL=0
  IF (X.GT.MAXROST(MV)) 2081, 2090
2180 DO=MAX-ROST(MV)
  FUEL=DO/CSAVE(MV)
  FX=DO - (FAIROST(MV) - 1) - MAXROST(MV) / (SAVE(1555))
  EXCESS = EXCESS - FX*DO
  FX = FX + FX*DO
2190 FUEL=FUEL-FX
DO 2100 I=1,NTX
  EXTRA(I)=OT(I)/CSAVE(NTGOTO)-EXTRA(I)
2100 NTGOTO=NTGOTO-1
C
C   COMPUTE EXTRA AT EACH STAGE
C
  Y = FX
  FX = EXCESS
  EXCESS = EXCESS - Y
DO 2110 I=1,NTX
  Y = EXTRA(I)
  EXTRA(I) = EXCESS
  EXCESS = EXCESS - Y
2110 EXCESS = EXCESS - Y
C
C   COMPUTE MAXIMUM POSSIBLE DISTANCE ON THIS FUEL
C
  NTGOTO=1555
  DELRST=1-F-0*CSAVE(NTGOTO)
  DELRST=MAX(1-CEPSTON, DELRST)
DO 2120 I=1,NTX
  DO=CR(I)*EXTRA(I)
  DELRST(I)=MAX(1-CEPSTON, DO)
DO = CSAVE(I) + EXCESS
  DELRST(I)=MAX(1-CEPSTON, DO)
GO TO 10959
C

```

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FINS.5

C F000
C
1100 PRINT 11001. IS
1101 F0001//1X.15(1X.1.5AM FOOTPRINT TEST ERROR THERE IS NO SYSTEM #
111- NUMBER = 1101
10001F001
10001GT.511002.1000
1102 CALL ADAPT
C 1000 RETURN
END

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[illegible]

5.4TS FOOTEST

11/24/71

ED 0

PAGE NO.

9

X00013	EXP	00465	00531	00704	00722	00724	00750	01065	01066	01071	01155	01156
P00133	EXTRA	00004	00704	01174	01222							
P00203	FOOTEST	00203										
P00162	FORMAT.	00803	00605	00612	00654	00663	00671	01125	01134	01144		
P01413	FUEL	00607	00610	00625	00625	01105	01105					
C00101	FUELEFT	00551	00550	00562	00567	00570	00572	00572	00711	00713	00734	01034
P01414	FX	01044	01046	01142	01143	01145	01145	01163	01165	01205		
P01415	FIACR	00665	00666	00667	01148	01141	01142					
P01416	G	00467	00471	00533	00537							
C00800	GAS	00541	00542	00546	00547	00551	00551					
P01247	G600000.	01237										
C00161	GNMF											
C00160	GTWD											
C00162	GZERO											
P01417	I											
C00361	IDATA	00211	00213	00255	00261	00425	00474	00507	00511	00574	00680	00613
P00160	IFERR	00428	00473	00477	00715	00721	00742	00746	00757	00763	01010	01012
P00416	IF00001.	01256	01062	01071	01072	01100	01146	01152	01167	01173	01214	01220
C00053	IFEAS	01275										
C00221	IFREE	01247	01250	01251								
P01420	IGOTO.											
C00065	IMIT	00346	00353									
C00001	IMWAMP											
P01260	IN00004.	00432	01266	01301	01331							
P01261	IN00006.	00452	01267	01303	01305	01317						
P01262	IN00007.	00452	01266	01306	01306	01321	01332					
P01263	IN00010.	00511	01267	01302	01342							
P01264	IN00011.	00544	00556	00546	00562	00753	01343	01353				
P01265	IN00013.	00577	00700	00733	01344	01354	01344					
P01366	INITIAL.	00204										
C00366	INVERSE											
C00002	IPOT											
P01421	IS	00223	00224	00233	00346	00503	01243					
C00001	ISYS	00221	00624	01107	01107							
P00214	LC	00347	00351									
P00352	LC00	00351										
P01237	LC000	00351										
P01253	LC002	00354										
P00356	LC000	00355										
P00362	LC000	00361										
P00371	LC000											
P00400	LC000											
P00403	LC000	00374	00377									
P00424	LC000	00414	00415	00422	00423							
P00470	LC000											
P00544	LC000	00423	00504	00505								
P00554	LC000	00552	00553									

P00561 .1350	00553								
P00565 .1360	00563	00564							
P00607 .1365	00606	01067							
P00611 .1370	00605	00606							
P00615 .1380									
P00624 .1390									
P00631 .1396									
P00643 .1397									
P00646 .1398	00641	00642							
P00660 .1400	00654	00656							
P00671 .1410	00657								
P00705 .1420									
P00725 .1430									
P00747 .1440									
P00764 .1450									
P01255 .19999	00564	00610	00630	00673	01050	01111	01111	01234	01252
P00774 .2000	00350								
P00313 .20	C1003	01004							
P01005 .2001									
P01022 .2005	01004								
P01032 .2008									
P01040 .2010									
P01045 .2020	01036	01037							
P01051 .2030	01047	01050							
P01070 .2040	01067								
P01075 .2050									
P01104 .2060									
P01112 .2070									
P01136 .2080									
P01144 .2090	01127	01127							
P01157 .2100									
P01177 .2110									
P01223 .2120									
P00506 .3000	00504								
P00315 .30	00312	00312							
P00534 .3100									
P00336 .40									
P01374 .ERASER.									
P00162 .11001	00276	00277	00301	00303	00304	00307	00316	00320	00323
P00770 .200001.	00327	00332	00412	00420	00464	00430	01001	01015	01024
P01422 J	00430	01325							
C00062 JAFER									
P01423 JEV	00357	00363	00546	00643	00644	00650	0.350		
P01424 J516M	C0372	00401	00427	01336					
P01425 K	00450	00453	01314						
C00071 LLMQDAY	00157								
C00304 LOST									
C00812 LPEMDAT	C00166								
C00165 LSHMDAT	C00072								
X00012 MAXLF	00334	00444	00517	00736	00766	01210	01223	01232	
C00001 MAXMT									
C00121 MAXLOAD	00627	00627	01110	01110					
C00000 MAXPOY									

5.ATS FQTEST

11/24/71 EC 0 PAGE NO. 11

CODE	NAME	01034	01041	01042	01126	01126	01131	01132	01134	01135	01135
C00144	WAXPOST										
C00000	WAXRY										
C00000	WAXSYS										
C00000	WAXLAD										
C00134	MISS										
C00131	WTYPE										
C00220	WFREE										
C00064	WTT										
C00103	WLOST										
C00135	WMISS										
P01426	WA										
P01427	WLV										
C00132	WTAH										
P01430	WTOGO										
P01431	WIX										
P01444	WGOOON										
P01105	WGOOON										
P01161	WGOFF										
X00001	WGOOON										
X00003	WGOOON										
X00004	WGOOON										
P01432	W										
C00050	WADN										
C00006	WAX										
C00044	WAXSIC										
P01433	W										
P00073	WEXSAVE										
C00003	W										
P01434	W										
P00067	WEXSAVE										
P01435	W										
P01436	WEXSAVE										
P01437	W										
C00002	W										
P01440	WEXSAVE										
P01441	WEXSAVE										
P01442	WEXSAVE										
P00011	WEXSAVE										
X00010	WEXSAVE										
C00001	WEXSAVE										
C00003	WEXSAVE										
C00011	WEXSAVE										
C00005	WEXSAVE										
C00007	WEXSAVE										
X00015	WEXSAVE										
P01443	WEXSAVE										
P01444	WEXSAVE										
C00042	WEXSAVE										
C00032	WEXSAVE										
C00034	WEXSAVE										

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```

CSUMR      SUBROUTINE FUELSAVE
C          FUELSAVE 1JUN71
C          COMPUTES FUELSAVED BY OMITTING WEAPONS
C          FOOTID 1JUN71
C          COMMON /FOOTID/ MAXRW, IS15, WTAR, RIN(20), TMIN(20), IFEAS,
1 DELRSTR, DELRAFT(20), FUELEFT
C          FOOTID 1JUN71
C          POTENT 1JUN71
C          COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), NMIT, IMIT(20), TOFLY(20)
1) * NMISS, MISS(50), NFREE, IFREE(50), MLOST, LOST(50), INVERSE(50)
2) * AGE(50)
C          POTENT 1JUN71
C          COMMON /POTENT/ IPOTGT, JAFI, JTGTO, NUMROOST
C          POTGT 1JUN71
C          IEVAL 1JUN71
C          COMMON /I/ VAL(50), JAFTR(50), VALFIRST(50), COSTEFF(20),
1 O(50), *O)
C          IEVAL 1JUN71
C          COMMON /DEB/ IOTA, ICAMFROM(20)
C          DEB 1JUN71
C          PRINT 1JUN71
C          COMMON /PRINT/ ICALL, IMUST
C          PRINT
C          IOTA=IOTA-1
C          ICAMFROM(IOTA)=BMFUELSAVE
C          ICALL=33
C          CALL GORPRINT(10)
C          CALL TEST
C          FOLD=FUELEFT
C          JLAST=0
C          DO 10 I=1,NMIT
C          J=IMIT(I)
C          JAFOLD=JLAST
C          JLAST=J
C          IPOTGT=J
C          CALL MISSIT
C          CALL TEST
C          FUELSAVD=FUELEFT-FOLD
C          FUELSAVD=MAXIF(FUELSAVD,.000001)
C          IPOTGT=J
C          JAFI=JAFOLD
C          CALL MITIT
C          COSTEFF(I)=FUELSAVD
C          10 CONTINUE
C          ICALL=61
C          CALL GORPRINT(15)
C          IOTA=IOTA-1
C          RETURN
C          END

```

5.ATS FUELSAVE

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EO

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P152 NO.

2

IDENT FUELSAVE

0011
00004
00102
00532
00004
05154
00025
03002

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

FUELSAVE

FOOTID
POTENT
4PNTGT
1
DEBUG
PQINT

EXTERNAL SYMBOLS

QMDICT.
GQPRINT
TEST
MISSIT
MITT
MAXIF

1945

5.4TS FUEL SAVF.

[illegible]

5.4TS FUELSAVE

CO0111	IGELY	
PO0063	TS00001.	00027
CO0000	VAL	
CO0164	VALFIRST	
PO0030	MS00001.	00064
00071	SYMBOLS	

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ED

0

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```

C
CEND
CUSE
      LOADDATA .....
      PARAMETER IJUN71 .....
      COMMON /PARAMETER/ MAXSYS, IPARAM(40), MINLOC(40), MAXLOC(40),
1  DSPACE(40), THROMAX(40), MTYPE(40), IDATA(40)
      PARAMETER .....
      COMMON /PERFOR/ NASGH, VALASGH, TVAL, NOLD, VALOLD
      PERFORM .....
      POTENT IJUN71 .....
      COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), NMIT, IMIT(20), YOFY(20)
1  MISS, MISS(50), NFREE, IFREE(50), NLOST, LOST(50), INVERSE(50)
2  AGE(50)
      POTENT .....
      RANGE IJUN71 .....
      COMMON /RANGE/ CROSSON, UPDOWN, DELMIN, DEFAULT
      RANGE .....
      VALPARH IJUN71 .....
      VALPARH .....
      VALPARH IJUN71 .....
      VALPARH .....
      COMMON /PNTGT/ PNTGT, JAFI, JTRTD, NUMPNTGT
      PNTGT .....
      PNTGT .....
      COMMON /I/ VAL(50), JAFTR(50), VALFIPST(50), COSTEFF(20),
1  N(50), 501
      IVAL .....
      ZSTATUS IJUN71 .....
      COMMON / Z/ MAXROOST, IRROOST(500), NFR(500)
1  , ISTATUS(1500), NDFX(1500)
      I .....
      DIMENSION NOEXVAL(50), NOEXR(50), NOEXT(50)
      EQUIVALENCE INDEX, NDEIVAL, INDEX(151), NDEXR(201), NDEXT)
      PSTATUS .....
      ZCOMP IJUN71 .....
      COMMON /Z/ RP(50), IP(50), HVALP(50), SINES(50), COSINES(50),
1  AVRP, AVTHP, QMIT, TMT, SINAV, COSAV, SINMIT, COSMIT, THOLD
      ZCOMP .....
      FLAG IJUN71 .....
      COMMON /FLAG/ FLAG, IFLAG(10), NC, IPRNT(60), IFG(60), IFR(60),
1  ILG(40), ILP(40), ILR(60), MPRNT(60), ICOMP
      TYPE LOGICAL IFLAG
      DIMENSION IDUMPR(40,8)
      EQUIVALENCE IDUMPR, IPRNT)
      FLAG .....
      COMMON /DEMUG/ IOTA, ICAMFROM(20)
      DEMUG .....
      PRINT IJUN71 .....
      COMMON /PRINT/ ICALL, IMOST
      PRINT .....
      DIMENSION IOX(50), DTEMP(10)

```



```

C
1 IF (IMUST.EI.012.1
2 IF (IFLAG.EI.012.1000
3 PRINT 2,ICALL,ICAMFROM(TOTAL)*GROUP,MW*900STANPASS,IMUST
4 FORMAT(10*PRINT NO.,13.6M FROM ,AB,10X,4*GROUP ,12.5X,AWROOSTER
5 ,5X,SHPASS 11.5X,BHIMUST = ,11;
6 GO TO 110,20,30,40,50,60,70,80,90,100,110,120,130,140,150,160,
1170,180,190,200,210,220,230,240,
900).IX
C
C COMMON/MPNAGRPX/
C
10 PRINT 11
11 FORMAT(MH*MPNAGRPX,10X,72M GROUP NWPNS NO. VEHICLES LATITUDE LO
INGITURE CLASS TYPE IMREV;
DO 4 J = 1, NGROUP
NATYPE(J)
IC=ICLASS(K)
IS=ISIMTYPE(K)
IM=0
IF (IC.EC.1)12,14
12 IF (IMIRV(IPAY(J)))14,14,13
13 IM=IMIRV(IPAY(J))
14 PRINT 15, J, NWPNS(J), NVEHGRP(J), MLAT(J), WLONG(J), IC, IS, IM
15 FORMAT(21X,12,4X,13,7X,13,8X,56,2,6X,56,2,6X,11,4X,89,31,12;
GO TO 900
C
C /PARAMETP/
C
20 PRINT 21
21 FORMAT(IIR+SYSTEM PARAMETERS,4X,SHIMREV,4X,AMNAME,4X,7MMINLOAD,
141M MAXLOAD, 5SPACE THROMAX NTYPE IDATA)
22 FORMAT(23X,12,4X,48,4X,12,7X,12,4X,47,2,3X,12,5X,12;
DO 24 K=1,MAXSYS
IF (THNAME(K).EQ.BHNCY USED)24,23
23 PRINT 22,K,THNAME(K),MINLOAD(K),MAXLOAD(K),OSPACE(K),THROMAX(K)
1
24 CONTINUE
24
GO TO 900
C
C FOOTPRINT PARAMETER TABLES (USER SUPPLIED SUBROUTINE)
C
30 CALL PRINTABLE S GO TO 900
C
C ROOSTER LOADING TABLES (USER SUPPLIED SUBROUTINE)
C
40 CALL PRINTLOAD S GO TO 900
C
C COMMON/STRKSUM/
C
50 PRINT 51,MGROUP,NTSTRK,NCORR,(1,1=1,NCORR;
PRINT 52,(NTSTRK(I),I=1,NCORR)
51 FORMAT(MH*STRKSUM/10X,9M*GROUP = ,13,4X,9*NTSTRK = ,14,4X,
14M*CORR = ,12/4X,4M*CORR,4X,20(12,3X))
52 FORMAT(4X,5M*STRKS,2X,20(16,1X))
GO TO 900
C

```

1561

```

113 FORMAT(1H,10X,16,2X,13
114 IF (JALF.NPHEE)115,117
115 PRINT 116,1F8E1(J)
116 FORMAT(1H,10X,13)
117 IF (JALF.NMISS)118,151
118 PRINT 119,J,MISS(J)
119 FORMAT(1H,7X,13,2X,13,
      VAL(J),NOEXVAL(J)
      2X,F7.3,3X,13)
151 IF (JALF.NMIT)152,154
152 PRINT 153,J,MIT(J),TOFLY(J),COSTEFF(J)
153 FORMAT(1H,4X,13,2X,12,2(2X,618,3))
154 PRINT 155,J,IPOT(J),INVERSE(J),AGE(J),VALFIRST(J),JASTER(J)
155 FORMAT(1X,13,2X,16,2X,14,2X,F6.1,3X,F7.3,3X,13)
      GO TO 900
C
C /CONTROL/
C
120 PRINT 121,MV,NARV,NEXTRA,PEXTRA,MPASS,MAXFOOT,DELAGE,FRACLOOK,PM
      J = PUGGE, EXTRAR, NOK
121 FORMAT(MH,CONTROL,9X,5MV = 13,4X,7MMARV = 13,4X,MMEXTRA = 11,
      14X,9MPEXTRA = F4.2,4X,MPASS = 11,4X,10MMXFOOT = 12,4X,
      20MDELAGE = F6.2/171,11FRACLOOK = F4.2,5X,5MPN = F5.2,5X,
      3MPUGGE = F5.2,5X,9MPEXTRAR = F4.1,5X,6MMARV = 14,
      GO TO 900
C
C /FOOTING/
C
130 PRINT 131,ISYS,ATAP,TEFA,FUELEFT,DELRSTOT
131 FORMAT(23HFOOTPRINT INPUT/OUTPUT,5X,10MSYSTEM NO.,13,5X,
      120MMNUMBER OF TARGETS = 13/10X,7HIFAS = 13,5X,10MPEULEFT = ,
      250,3,5X,11MDLRSTOT = F0.41
      POINT 132, (K, RIN(K), THIN(K), DELPART(K), TOFLY(K), X, K=1,NTAP)
132 FORMAT(1H,18X,5MDRAGE,5X,7H21MUTM,6X,7HCELMAPT,6X,5MTHFLY/(12X,
      112,3X,F7.1,4X,F8.5,2(4X,F0.4),2X,12))
      GO TO 900
C
C COMMON/PERFORM/
C
140 PRINT 141, NASKA, VALASEN, TVAL, NOLD, VALOLD
141 FORMAT(23HPERFORMANCE PARAMETERS,6X,4X,NASGN = 14,3X,
      110MVALASEN = F10.3,3X,7HITVAL = F10.3,3X,7HMGLD = 14,3X,
      20MVALOLD = F10.3)
      GO TO 900
C
C /IEVAL/ = /POTENT/
C
150 GO TO 116
C
C /MPLTGT/
C
160 PRINT 161,IPOTGT,JAFT,JTGTD,MIMROOST
161 FORMAT(7H40PNTGT,10X,9H1POTGT = 13,4X,7HJAFT = 13,5X,8HJTGTD = ,
      114,5X,110MIMROOST = 13)
      GO TO 900
C
C COMMON /3/ OR /3COND/ = MPXEO = NOEXT = COMMON /RANGE/
C

```

```

170 PRINT 171,AVRP,AVTMP,STNAV,COSAV,TMOLD,RMT,TMT,STAMPT,COSIMMT
171 FORMAT(240/3/ - TEMPORARY STORAGE/5X,7MAVRP = .F7.1,5X,7MAVTMP =
16X,5X,7MAVSI-LEV = .F8.5,5X,7MACOSAV = .F8.5,5X,7MTMOLD = .E10.3/5X
2X,7MTMMT = .F7.1,6X,7MTMTT = .F8.5,4X,7MSIMMT = .F8.5,4X,7LMCOSIMM
317 = .F8.5/10X,7MJC 1907,4X,7MWRANGE,4X,7MZZIMUTM,4X,7MWRPLP,6X,5MS
416,5,4X,7MCOSSI,4X,5X,7MJJ3X,4MWRAR,2X,7MDEXIT)
172 PRINT 172,(K1POT(K),PP(K),10(K),RVAP(P(K),STIMES(K),COSINES(K),K,
1 MDEXAR(K),MDEXIT(K),K = 1, MAXPOT)
173 FORMAT(1X,13,2X,14,3X,57,1,4X,5,2X,E10.3,2(11X,5,1X),2X,13,
12(1X,14))
GO TO 90
C
C
C COMMON INDEX
C
180 PRINT 181,JINP,JIMP,JOUTP,MJSAVE,JSAVOPY,(JSAVE(K),K=1,MJSAV
1E)
181 FORMAT(AMNINDEX,5X,7MJINP = 14,5X,7MJIMP = 14/10X,7MJOUTP = 14,
14X,7MJOUTP = 14/9X,9MJSJAVE = 14,2X,10MJSAVOPY = 14/5X,10MJSAVE
2X,(20(1X,14)))
GO TO 900
C
C COMMON /FEOTSJAVE/
C
190 PRINT 191,MMITOLD,MMITOLD, (IFOTSJAVE(K), K = 1,MMITOLD)
191 FORMAT(10MFOOTSJAVE,10X,10MMITOLD = 12,5X,10MMITOLD = 10,3/1X,
11MFEOTSJAVE = (20(1X,14)))
192 PRINT 192,M2SAVE,(IF2SAVE(K),K=1,M2SAVE)
193 FORMAT(10M2SAVE = 12/10M192SAVE = (20(1X,14)))
GO TO 900
C
C DISTANCE MATRIX
C
200 N=0
201 PRINT 201, TMOLD
201 FORMAT(10M0DISTANCE MATRIX,10X,MMITOLD = 10,3)
DO 203 K=1,MAXPOT
IF (INVERSE(K),N=0)202,203
202 J=0
10K(M)=K
203 CONTINUE
MTIMES=N/10
IF(N=0)
DO 205 K=1,NTIMES
IFEG=IFND=1 IFND=IFND+10
204 PRINT 204, (10K(J),J=1,REG,ITEM)
204 FORMAT(//5X,10(1X,12))
DO 205 L = 1, N
IC = 10K(L)
IS = 0
DO 207 J = 1,REG, ITEM
IS = IS + 1
207 ITEM=IS = DIC, 10K(J)
205 PRINT 205, IC, (ITEM(J), J = 1- IS)
206 FORMAT(3X,13,3X,10(1X,E10.3))
IFEG=IFND+1
IF (1-IFEG,6T, N) 900, 99201

```

```

90201 PRINT 204, (IOK(J), J = 196, N)
DO 205 I = 1, N
  IC = IOK(I)
  IS = 0
  DO 208 J = 196, N
    IS = IS + 1
  208 IF (IS) = 0 THEN IOK(J)
  209 PRINT 206, IC, (DIEM(J), J = 1, IS)
  GO TO 900
C
C      FINAL PLAN
C
210 IS = TYPE(LGROUP)
PRINT 211, IS, TYPE(IS), JGROUP, NT, NV
211 FORMAT('FINAL PLAN FOR *AR* GROUP NO. *I3/10X* THERE ARE *
114 * TARGETS ASSIGNED TO *I3 * BOOSTERS
J = 0
K = 0
212 J = J + 1
IF (J - NT) 213, 213, 900
213 IF (IOK(J)) 214, 216, 216
214 K = K + 1
PRINT 215, K
215 FORMAT('BOOSTERS, I4)
PRINT 63
L = 0
216 L = L + 1
ITEMP = KANSF(ITEMP(J))
PRINT 62, ITEMP, ITEMP(J), ITEMP(J), ITEMP(J), ITEMP(J),
1 OFSIG(J), TASK(J), CHTYLOC(J), FLAG(J), IVAL(J), LLPIX(J), L
GO TO 212
C
C      DISTRIBUTION OF RVs TO BOOSTERS
C
C
220 IOK(50) = 0
IC = MAXLOAD(155)
DO 221 J = 1, IC
  221 IOK(J) = 0
  DO 223 J = 1, NV
    K = ITR(J)
    IF (K) 222, 222, 223
  222 K = 50
  223 IOK(K) = IOK(K) + 1
PRINT 224
224 FORMAT('DISTRIBUTION OF PREENTRY VEHICLES/41, 240V, 51, 64 NUMBER, 41
1, 70 PERCENT)
IF (IOK(50) .GT. 9) 225, 225
225 J = 0
P = (180. * IOK(50)) / NV
PRINT 226, J, IOK(50), P
226 DO 229 J = 1, IC
  IF (IOK(J) .GT. 0) 227, 229
  227 P = (180. * IOK(J)) / NV
  PRINT 228, J, IOK(J), P
228 FORMAT('I2, 61, I3, 61, 62)
229 CONTINUE

```


IDENT GPRINT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

GOPRINT	IDENT
07653	07653
01727	01727
00627	00627
02570	02570
00047	00047
21534	21534
13550	13550
00016	00016
00102	00102
00053	00053
00032	00032
02764	02764
00431	00431
00005	00005
00532	00532
00004	00004
00003	00003
00004	00004
05156	05156
07441	07441
00403	00403
00747	00747
00025	00025
00002	00002

EXTERNAL SYMBOLS

EXTERNAL SYMBOLS	GOPRINT
C3000000	
THE NO.	
000FVALL	
Q1004100	
Q1005100	
Q000100	
PRINTABLE	
PRINTLOAD	
ABORT	
STM.	
Q000004	
Q000000	

5.ATS CORRINT

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C00000	OZ	03531	03576	03577	03577	03600	03680
P03613	ENDIME.	03573					
P00000	EXIT.						
C00012	EXTRAR						
C10024	FLAG	03372					
P00077	FORMAT.						
P01764	FR00001.	03611					
C00005	FRACLOX						
C00101	FUELEF						
P03627	GEIPL.						
P03617	GETPU.	03623					
P01764	GG00000.						
P02017	GG00001.						
P02070	GG00002.						
P02102	GG00003.						
P02136	GG00004.						
P02163	GG00005.						
P02201	GG00006.						
P02214	GG00007.						
P02222	GG00010.						
P02263	GG00011.						
P02314	GG00012.						
P02323	GG00013.						
P02354	GG00014.						
P02403	GG00015.						
P02417	GG00016.						
P02436	GG00017.						
P02445	GG00020.						
P02465	GG00021.						
P02521	GG00022.						
P02522	GG00023.						
P02542	GG00024.						
P02561	GG00025.						
P02610	GG00026.						
P02625	GG00027.						
P02652	GG00030.						
P02667	GG00031.						
P02704	GG00032.						
P02725	GG00033.						
P02757	GG00034.						
P03005	GG00035.						
P03027	GG00036.						
P03047	GG00037.						
P03062	GG00040.						
P03127	GG00041.						
P03172	GG00042.						
P03221	GG00043.						
P03264	GG00044.						
P03310	GG00045.						
P03335	GG00046.						
P03393	GG00047.						
P03406	GG00050.						
P03451	GG00051.						
P03474	GG00052.						

P03521	600053.	03510							
P03537	600054.	03525							
P03543	600055.	03540							
P01727	600056.	01727							
P03635	I	02154	02170	02171	02174				
C16517	INACK	02373	03135	03201	03201				
P03636	INRG	03107	03116	03204	03227				
C00001	INROSY	02344	03132	03157	03251	03413			03414
P03637	IC	02025	02031						
		03422	01766	03566	03446				
C00000	ICALL	01736	01766						
C00001	ICAMPROM	01751	02427						
C02240	ICLASS	02024	02025						
C06361	IDATA	02125							
C00001	IDENTMO								
C00003	IDUM								
C00746	IDUMP	03567							
C00006	IDUMPR								
P03640	IFMO	03103	03110	03123	03135	03200			
C00026	IF2SAFE	03440							
C00272	IFB								
C00053	IFEAS	02620							
C00102	IFE								
C00091	IFLAG	01740							
C13543	IFOR	02335	02371	02371					
C00000	IFOTSAVE	03020							
C00176	IFP								
C00221	IFREE	02475							
C00015	IGEMO								
P03641	IGOTO.	01765							
C00016	IGSTART								
C00000	IMDATE								
C00005	IMIT								
C00001	IMNAME	02533	02534	02116	02117				
C00556	ILB	02105							
C00366	ILB								
C00462	ILP								
P03642	IM	02031	02046	02045	02045				
C02520	IMIV	02037	02045	01760	01760				
C00001	IMUST	01733	01733	03321	03321				
C00003	IMDEX	02232	02233						
P03576	INITIAL.	01752							
C00366	INVERSE	02552	03070	03070	03070				
P00003	INX	03475	03121	03132	03132				
		03451	03457	03470	03477				
C00300	IOTA	01750	01750	02432	02432				
C01750	IPAY	02034	02034	02042	02042				
C00002	IPOT	02550	02551	02736	02736				
C00000	IPOTOT	02075	02075						
C00004	IPRMT								
P03643	IS	02030	02064	03133	03140				
		03200	03272	03277	03277				
C00002	ISIDE								
C02400	ISIMTYPE	02026	02027	03277	03300				

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C81751	IS STATUS	02333	02334	02347	02370
C80001	ISYS	02415	02415	03410	03411
P03644	ITEMP	03352	03360		
C81446	ITYPE	02022	02022	03271	03271
P00077	IX	01764			
P01736	.1	01734	01735		
P02011	.10	01766			
P22420	.109	01775			
P02573	.1000	01741	03565	03570	
P02437	.110	01776	02670		
P02452	.112	02451			
P02445	.114	02451			
P02470	.115	02447			
P02501	.117	02487			
P02504	.110	02503			
P02633	.12				
P02545	.120	01776			
P02641	.13				
P02611	.130	01777			
P02047	.14	02032	02040	02040	
P02633	.140	02000			
P02670	.150	02001			
P02522	.151	02593			
P02525	.152	02524			
P02542	.154	02524			
P02671	.160	02001			
P02705	.170	02002			
P02760	.180	02303			
P03066	.190	02004			
P01742	.2	01735	01741		
P02074	.20	01767			
P03050	.200	02004			
P03072	.202				
P03076	.203				
P03153	.205				
P03142	.207				
P03234	.208				
P03343	.209				
P03270	.210				
P03313	.212				
P03320	.213		03316		
P03324	.214	03322			
P03345	.216	03322	03323		
P03407	.220	02004			
P03420	.221				
P03435	.222	03433	03433		
P03437	.223	03434			
P03454	.225				
P03474	.226	03452	03453		
P03501	.227				
P03521	.229	03500	03500		
P02110	.23	02107			
P02525	.230	02007			
P02130	.24	02107			

P02753	TS00014.	02732
P03001	TS00015.	02774
P03023	TS00016.	03016
P03043	TS00017.	03036
P03100	TS00020.	03005
P03176	TS00021.	03144
P03123	TS00022.	03117
P03173	TS00023.	03130
P03153	TS00024.	03136
P03164	TS00025.	03162
P03215	TS00026.	03211
P03265	TS00027.	03222
P03245	TS00030.	03230
P03260	TS00031.	03254
P03423	TS00032.	03415
P03443	TS00033.	03426
P03522	TS00034.	03475
P03557	TS00035.	03532
C00002	TVAL	02462
C00001	UPDOWN	02412
C00000	VAL	02514
C00001	VALASOM	02461
C00104	VALFIRBY	02554
C00004	VALOLO	02464
C00025	WHITOLD	03014
C00420	WLAT	02060
C01130	WLOWG	02061
P02021	W500001.	02072
P02104	W500002.	02132
P02154	W500003.	02160
P02171	W500004.	02176
P02230	W500005.	02260
P02272	W500006.	02311
P02331	W500007.	02351
P02365	W500010.	02400
P02426	W500011.	02433
P02447	W500012.	02563
P02433	W500013.	02647
P02733	W500014.	02754
P02775	W500015.	03002
P03017	W500016.	03024
P03037	W500017.	03044
P03070	W500020.	03077
P03104	W500021.	03177
P03120	W500022.	03124
P03131	W500023.	03174
P03140	W500024.	03152
P03163	W500025.	03167
P03212	W500026.	03216
P03223	W500027.	03244
P03232	W500028.	03244
P03275	W500031.	03261
P03420	W500032.	03422
P03431	W500033.	03442

S.ATS GPRINT

PC3476 W500034. 03523 03523
PC3553 W500035. 03560 03560
00000 SYMBOLS

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      IOTA=IOTA+1
      ICAPFROM(IOTA)=NMISST
      ICALL=28
      CALL SOMEINT(10)

      ICALL=37
      IT=IPOTAT
      INOB=INVERSE(IT)
      NMIS=NMIS+1
      MISS(NMIS)=IT
      INVERSE(IT)=NMIS
      VAL(NMIS)=0.0
      NMIT=NMIT-1
      DO 110 I=INOB,NMIT
      COSTEFF(I)=COSTEFF(I+1)
      IMIT(I)=IMIT(I+1)
      110 INVERSE(IMIT(I))=I
C
      *****
      CALL SOMEINT(16)
      CALL SOMEINT(11)
      IOTA = IOTA - 1
      RETURN
      END

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PROGRAM LENGTH	IDENT	WITTY
ENTRY POINTS		
BLOCK NAMES		
POTENT	00225	
WMTGT	00005	
1	00122	
DEBAG	00532	
PRINT	00004	
	05156	
	00425	
	00002	
EXTERNAL SYMBOLS		
COORDIC.		
COORDIN		

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S.ATS

WITTY

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C00459	ABE	00287	00101	00102	00110	00115	00163	00163	00164			
C00236	BEEM.	00101	00059	00067	00067	00161	00162					
C00224	C02TEFF											
C00216	C00NY.											
C00252	D											
C00001	DICT.	00007	00028	00124	00135	00176	00201					
C00210	EMOING.	00010	00125	00205	00206	00207						
C00000	EXIT.	00211										
C00003	FORMAT.	00013	00130									
C00002	G00PANT	00017	00134	00175	00200							
C00005	WITTY	00005										
C00217	I	00047	00056	00061	00061	00064	00072	00100	00156	00162	00170	00173
C00000	ICALL	00044	00016	00022	00133	00133	00137					
C00001	ICAMPROM	00014	00132									
C00221	IFREE	00031	00035	00063	00066	00070	00107	00112				
C00220	INCRE	00074	00074	00104	00104	00105	00113	00113	00164	00165	00165	00166
C00065	INIT	00166										
C00001	IMUST											
C00246	INITIAL.	00010	00125									
C00221	INQ	00040	00043	00046	00144	00156	00160	00160	00160	00160	00161	00162
C00366	INVERSE	00027	00030	00037	00037	00057	00140					
		00143	00151	00171	00172							
C00006	ICYA	00011	00011	00012	00014	00014	00126	00126	00127	00131	00131	00293
		00203	00204									
C00002	IPOT											
C00006	IPOTIST	00023	00023	00140	00140							
C00222	IT	00024	00036	00110	00112	00141	00142	00147				
C00034	-10	00032										
C00164	-110											
C00036	-20	00033										
C00054	-30											
C00103	-40											
C00175	-9999	00033	00121									
C00003	-110000	00013										
C00004	-110000	00130										
C00212	-NSTITUTE.	00056	00057	00076	00077	00170	00171					
C00223	J	00073	00073	00076	00103							
C00224	JAF	00024	00027	00032								
C00001	JAST	00025										
C00002	JASTER											
C00002	JTOTO											
C00304	LOST											
C00001	MAXMIT											
C00000	MAXPOY											
C00134	MISS											
C00122	MISSIV											
C00220	MPREE											
C00004	MMIT											
		00051	00051	00052	00354	00054	00150					
		00122										
		00064	00065	00071	00071	00115	00116	00117	00120	00153	00154	00155
		00157	00157									
C00303	MLOST											
C00135	MMISS											
C00003	NUMEROUS	00041	00041	00042	00043	00045	00144	00145	00146	00147	00150	00151
C00001	OBODICT.	00000	00006	00123								

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C00111 70FLY 00120
 P00063 TS00001. 00046
 P00107 TS00002. 00064
 P00175 TS00003. 00161
 C00000 VAL 00052
 C00144 VALFIRST
 P00051 WS00001. 00062
 P00070 WS00002. 00106
 P00163 WS00003. 00174
 00073 SYMBOLS

00053 00053 00192 00153

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SUBROUTINE IMPROVE
  CSUBR      IMPROVE 1JUN71
  CUSE      CONTROL 1JUN71
  COMMON /CONTROL/ MV, MARY, MEXTRA, PEXTRA, MPASS, FRACLOON,
1  MAXFOOT, DELAG, PUNE, PH, EXTRAB, NOX
2  IGSTART, IGEND
  CEND      CONTROL 1JUN71
  CUSE      FOOTIO 1JUN71
  COMMON /FOOTIO/ MARY, ISYS, MTAR, RIM(20), TWIN(20), IPEAS,
1  DELSTRAT, DELRAFT(20), FUELEFT
  CEND      FOOTIO 1JUN71
  CUSE      PARAMETR 1JUN71
  COMMON /PARAMETR/ MAXSYS, INAME(40), MINLOAD(40), MAXLOAD(40),
1  OSPACE(40), THROMAX(40), MTYPE(40), IDATA(40)
  CEND      PARAMETR 1JUN71
  CUSE      POTENT 1JUN71
  COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), MMIT, IMIT(20), TOPLY(20)
1  AMISS, MISS(50), MFREE, IFREE(50), MLOST, LOST(50), INVERSE(50)
2  ABF(50)
  CEND      POTENT 1JUN71
  CUSE      MPMGT 1JUN71
  COMMON /MPMGT/ IPOT(50), JAPT, JTBD, MUMBOOST
  CEND      MPMGT 1JUN71
  CUSE      IEVAL 1JUN71
  COMMON /I/ VAL(50), JAFTR(50), VALFIR(50), COSTEFF(20),
1  P(50, 50)
  CEND      IEVAL 1JUN71
  CUSE      PSTATUS 1JUN71
  COMMON / 2/ MAXBOOST, IBOOST(500), MTR(500)
1  STATUS(1500), MOFX(1500)
  C
  C      DIMENSION NOEXVAL(50), NOEXP(50), NOEXT(50)
  C      EQUIVALENCE (NOEX, NOEXVAL), (INDEX(10), NOEXP), (INDEX(20), NOEXT)
  C
  C      2STATUS 1JUN71
  C      3COMP 1JUN71
  COMMON /3/ RP(50), TP(50), RVAMP(50), SIMES(50), COSINES(50),
1  AVMP, AVTMP, QMIT, TMIT, SINAV, COSAV, SIMMIT, COSIMMIT, THOLO
  C      3COMP 1JUN71
  C      DERUG 1JUN71
  COMMON /DERUG/ IOTA, ICAMRON(20)
  CEND      DERUG 1JUN71
  CUSE      PRINT 1JUN71
  COMMON /PRINT/ ICALL, IMUST
  C      PRINT
  C
  C      THIS ROUTINE IMPROVES THE FOOTPRINT BY REMOVING THE TARGET THAT
  C      USES THE MOST ADDITIONAL FUEL AND ADDING OTHER TARGETS IF POSSIBLE
  C
  C      IOTA = IOTA + 1
  C      ICAMRON(IOTA) = RMIMPROVE
  C      CALL P 20
  C      CALL GOMPRINT(10)

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FTMS.5

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C
IF (MISS .LT. 1) 9999. 5
5 IF (MISS .LE. 1) 10. 100
C
C FIND SINGLE MOST VALUABLE TARGET
C
10 IMAX = INIT(1)
JMT = 0
VTEST = EVALP(IMAX)
IPOTOT = IMAX
CALL MISSIT
DO 50 I = 1, MISS
J = MISS(I)
V = EVALP(J)
IF (V .GT. VTEST) 20. 50
20 IPOTOT = J
CALL MISSIT
CALL TEST
IF (IPERS .GT. 0) 30. 40
30 VTEST = V
IMAX = J
40 IPOTOT = J
CALL MISSIT
50 CONTINUE
IPOTOT = IMAX
CALL MISSIT
60 TO 9999

C SEARCH FOR CHANGES THAT INCREASE NUMBER OF TARGETS IN FOOTPRINT
C
100 JOLD = JNEW = JAFOLD = 0
110 CALL FULSAVE
VTEST = COSTEFF(1)
JOO = INIT(1)
WHITOT = WHIT
120 DO 140 I = 1, WHIT
J = INIT(I)
IF (COSTEFF(I) .LT. VTEST) 130. 140
130 VTEST = COSTEFF(I)
JOO = J
140 CONTINUE
IF (JOO .EQ. JNEW) 9999. 150
150 IPOTOT = JOO
I = INVERSE(JOO)
JAFOLD = 0
IF (I .GT. 1) 152. 156
152 JAFOLD = INIT(I-1)
150 JOLD = JOO
CALL MISSIT
CALL TEST
IF (JAFOLD .LT. 1) 160. 170
160 CALL REVAL
DO 100 TO 106
170 CALL EVAL
C
C FIND BEST TARGET TO REPLACE OMITTED ONE

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C
130 JARD = 0
DO 100 I = 1, NMIS
140 MEXVAL(I) = MISS(MEXVAL(I))
200 JARD = JARD + 1
IF (JARD .GE. NMIS) 350, 210
210 J = MEXVAL(JARD)
IF (J .EQ. JOLD) 200, 250
250 JART = JARTER(J)
260 IF (JART .LT. 0) 200, 270
270 IPOTGT = J
CALL MITY
CALL TEST
IF (IFERS .LT. MHIT) 280, 300
280 CALL MISSIT
GO TO 200
300 IF (JART .LE. 0) 310, 320
310 CALL REVAL
GO TO 330
320 CALL EVAL
330 JARD = 0
JMEV = J
DO 340 I = 1, NMIS
340 MEXVAL(I) = MISS(MEXVAL(I))
IF (MHIT .LT. MAXLOAD(I*5)) 200, 350
C
C CHECK THAT THIS CHANGE HAS INCREASED NUMBER OF TARGETS HIT
C
350 IF (MHIT .GT. MHIT0X) 110, 360
360 IF (MHIT .EQ. MHIT0X) 370, 380
370 IF (RVALP(JMEV) .GE. RVALP(JOLD)) 9999, 380
380 IPOTGT = JMEV
CALL MISSIT
CALL TEST
CALL REVAL
IPOTGT = JOLD
JART = JARTER(JOLD)
CALL MITY
CALL TEST
IF (IFERS .LT. MHIT) 400, 9999
400 PRINT 410
410 FORMAT(//15(11A), 20H ADDITION ERROR IN IMPROVE)
IMUST = 1
CALL GCPRINT(13)
CALL GCPRINT(11)
IMUST = 0
C
9999 ICALL = 53
CALL GCPRINT(11)
ZOTA = IOTA - 1
MTCOM
END

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5.475 IMPROVE

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IDENT IMPROVE

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IMPROVE

CONTROL

FOOTIO

PARAMETR

POTENT

WPH797

1

2

3

DEBAG

PRINT

EXTERNAL : /MBOL5

THROW.

GOODICT.

GOPRINT

MISSIV

WITIV

TEST

FUELSAVE

REVAL

EVAL

STM.

00424

00020

00016

00182

00431

00532

00004

05156

07441

00403

00025

00002

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C00450 AGE									
C00372 AVRP									
C00373 AVTMP									
P00400 BEGIN.									
C00377 COSAV									
C00310 COSINES									
C00401 COSINUIT									
C00226 COSTEFF									
P00410 COUNT.									
P00003 CPMPT.									
C00252 D									
C00007 DELAGE									
C00055 DELRAFT									
C00054 DELRSTRT									
P00001 DICT.									
C00171 DSPACE									
P00402 ENOIMS.									
X00011 EVAL									
P00000 EXIT.									
C00012 EXTRAP									
P00003 FORMAT.									
C00005 FRACLOOK									
C00101 FUELEFT									
X00007 FUELSAVE									
X00357 G000000.									
X00003 G000000.									
X00005 MIXTY									
P00011 I									
C00001 IBOOST									
C00000 ICALL									
C00001 ICAMPROM									
C00301 IDATA									
C00053 IFEAS									
C00221 IFREE									
C00015 IGEMO									
C00014 IGESTART									
C00005 INIT									
C00001 INAME									
P00412 IMAX									
P00020 IMPROVE									
C00001 IMPUST									
C00001 INITIAL.									
C00001 INVERSE									
C00000 IOTA									
C00002 IPOUT									
C00000 IP3707									
C01751 ISTATUS									
C00001 ISYS									
P00303 -10									
P00117 -100									
00401	00124	00142	00162	00182	00202	00222	00242	00262	00282
00124	00137	00211	00212	00273	00274	00274	00274	00274	00274
00357									
00022	00033	00054	00072	00074	00104	00115	00123	00172	00174
00203	00244	00246	00253	00261	00264	00330	00332	00334	00345
00353	00356	00362	00365	00373					
00023	00377	00400	00401						
00292	00263								
00403									
00026									
00122									
00351	00361	00364	00372						
00032	00114	00243	00242						
00075	00057	00107	00133	00126	00100	00162	00164	00206	00211
00273									00270
00031	00031	00370	00371						
00030									
00075	00075	00207	00207	00346	00346				
00043	00043	00126	00126	00140	00140	00165	00165		
00044	00047	00051	00102	00112					
00020	00020	00020	00020	00020					
00357	00360	00367							
00023	00157	00025	00027	00027	00375	00375	00376		
00024	00024	00025	00027	00027	00375	00375	00376		
00052	00052	00070	00070	00104	00104	00113	00113	00195	00242
00242	00326	00326	00326	00336					
00304	00304								
00041									
00042									

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000122 .110	00313								
000132 .120									
000145 .135									
000150 .140	00144	00144							
000154 .150	00152								
000164 .152									
000167 .156	00163	00163							
000177 .160									
000202 .170	00176	00176							
000204 .180	00201								
000213 .190									
000667 .28									
000221 .280	00232	00240	00254	00357					
000224 .210	00224	00225							
000233 .250	00231								
000236 .260									
000241 .270	00237	00240							
000252 .280									
000100 .30									
000255 .300	00251	00251							
000260 .310	00254								
000263 .320	00257								
000265 .330	00262								
000275 .340									
000310 .350	00225	00306	00306						
000314 .360	00312	00312							
000317 .370									
000325 .380	00323								
000335 .390	00316								
000103 .40	00076	00077							
000351 .400									
000040 .5	00036	00037							
000107 .50	00065	00066							
000370 .5999	00037	00116	00153	00323	00324	00350	00350	00350	
000003 .-100000	00024								
000004 .-410	00354								
000404 .-STIFF.	00215	00277	00277	00277	00103	00141	00147	00230	00241
000413 J	00061	00062	00067	00101	00223	00236	00255	00255	00264
000414 JARD	00205	00221	00222	00223	00226	00240	00241	00241	00241
000031 JAT	00045	00046	00233	00235	00236	00236	00255	00255	00341
000062 JASTER	00234	10234	00340	00340	00340	00340	00341	00341	00341
000415 JASTOLD	00120	00141	00146	00175	00156	00167			
000416 JES	00127	00147	00151	00154	00156	00167			
000417 JEF	00120	00152	00207	00317	00325	00337			
000420 JOLN	00121	00170	00231	00321	00335	00337			
000002 JTGTH									
000304 LOST									
000000 MAXMOOST									
000004 MAXFOOT									
000001 MAXMILY									
000121 MAXLOAD	00305	00305							
000000 MAXPOT									
000000 MAXRY									
000000 MAXSYS									

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C00051	MIMEGAD	00060	00060	00216	00216	00300	00300	00275	00275	00301	00310
C00136	WISS	00053	00105	00171	00252	00327	00327	00227	00227	00303	00310
C00304	WISSIT										
C00311	WTYPE										
C00001	WADV										
C00705	WDEX										
C00051	WDEXR										
C00215	WDEXT										
C00705	WDEXTAL										
C00002	WEXTRA										
C00226	WFREE										
C00064	WMIT										
P00421	WMITOX	00213	00213	00217	00217	00227	00227	00275	00275	00301	00310
C00303	WLOST										
C00135	WMISS										
C00019	WNG										
C00004	WPAES										
C00002	WYAP										
C00705	WYB										
C00003	WUMOCOST										
C00008	WV										
C00003	WEXTRA										
C00011	WPN										
C00010	WPUGE										
X00002	WREOICT.	00000	00021								
X00010	WREVAL	00177	00260	00333							
C00374	WRYT										
C00003	WRYM										
C00000	WRP										
C00144	WRVALP	00047	00050	00062	00063	00320	00320	00322	00322		
C00376	WRYAV										
C00226	WRYMES										
C00408	WRYMIT										
X00012	WRYA.	00352	00173	00245	00331	00344					
X00004	WRYE	00073									
X00001	WRYE	00355									
C00027	WRYA										
C00375	WRYL.										
C00402	WRYOLD										
C00241	WRYOWMAX										
C00111	WRYFLY										
C00062	WRY										
P00110	WRY00001.	00156									
P00151	WRY00002.	00135									
P00221	WRY00003.	00210									
P00303	WRY00004.	00272									
P00422	WRY	00064	00064	00190							
C00000	WRY										
C00144	WRYFIRST										
P00023	WRYEST	00051	00065	00101	00125	00143	00143	00146			
P00057	WRY00001.	00111	00111								
P00143	WRY00002.	00150									
P00213	WRY00003.	00220									

5.4TS IMPROVE

P00275 W500004. 00302
00234 SYMBOLS

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SUBROUTINE INITASN
C SUBR INITASN 1JUN71
C
C USE PAIDATA 1JUN71
C
COMMON/PAIDATA/ NT, JGROUP, JCORP, JCORP, INDEX(1500), TOTLAT(1500)
1  , TOTLONG(1500), RVAL(1500), DLAT(1500), DLONG(1500)
2  , LMAID, NTRAX, LFLTA(1500)
C
C DIMENSION R(1500), T(ETA(1500)), IFOP(1500), IBACK(1500), IDCM(10)
C
C EQUIVALENCE (R, TOTLAT), (T(ETA, TOTLONG), (IFOP, DLAT), (IBACK,
C IDLONG), (IDCM, INDEX)
C
C TYPE LOGICAL LFLIX
C
COMMON/4/ DESIG(1500), TASK(1500), CTRYLOC(1500), FLAG(1500)
C
CENQ PAIDATA
CUSE CONTROL 1JUN71
COMMON/CONTROL/ NV, NARY, NPTXA, PEXTRA, NPA35, FRACLOM,
1  MAXFOOT, DELANE, PUMBE, PM, EXTRAB, NOK
2  , IGSTART, IGENO
CENQ CONTROL
CUSE PERFORM 1JUN71
COMMON/PERFORM/ NASM, VALASM, TVAL, NOLD, VALOLD
CENQ PERFORM
CUSE POTENT 1JUN71
COMMON/POTENT/ MAXPOT, MAXINT, IPOT(50), WHIT, IMY(20), TOTLY(20)
1  , NMISS, MISS(50), NWRFC, IPREF(50), NCOST, LOST(50), INVERSE(50)
2  , AGE(50)
CENQ POTENT
CUSE ZSTATUS 1JUN71
COMMON/ Z/ MAXRCOST, IMOST(500), NTR(500)
1  , ISTATUS(1500), NDEX(1500)
C
C DIMENSION NOEVAL(50), NOERR(50), NOSTY(50)
C
C EQUIVALENCE (NOE, NOEVAL), (NOE(10), NOE(20), (NOE(20), NOE(21), NOE(22))
C
C ZSTATUS
CUSE DEBUG 1JUN71
COMMON/DEBUG/ IOTA, ICAMPROM(26)
CENQ DEBUG
CUSE PRINT 1JUN71
COMMON/PRINT/ ICALL, IPUST
CENQ PRINT
C
C IOTA=IOTA+1
C ICAMPROM(IOTA)=MINITASON
C ICALL=27
C CALL BOPRINT(10)
C
C SET UP INITIAL VALUES IN /Z/ AND /PAIDATA/
C

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      NASCON=0
      VALASCON=0
      DO 10 I=1,MV
10      IBOOST(I)=MTR(I)=0
      DO 20 I=1,MTR
20      ISTATUS(I)=2
      SET UP INITIAL ASSIGNMENT
      IP=0
      DO 200 I=1,MV
      IP=IP+1
      ISTATUS(IP)=1
      NASCON=NASCON+1
      VALASCON=VALASCON+RYAL(IP)
      MTR(I)=1
      ITOP = IP
      IBOOST(I)=IP
      IBACK(IP) = -IP
      IFOR(IP) = -1
      DO 100 J=2,MAMP
      IP=IP+1
      ISTATUS(IP)=1
      NASCON=NASCON+1
      VALASCON=VALASCON+RYAL(IP)
      MTR(I)=MTR(I)+1
      IBACK(IP)=IP-1
      IBACK(ITOP) = -IP
      IFOR(IP)=IP
      IFOR(IP-1)=1
100      IFOR(IP)=1
110      IF(MEXTRA)200,206,110
      IF(MEXTRA) MEXTRA=1
      IP=IP+1
      ISTATUS(IP)=1
      NASCON=NASCON+1
      VALASCON=VALASCON+RYAL(IP)
      MTR(I)=MTR(I)+1
      IBACK(IP)=IP-1
      IBACK(ITOP) = -IP
      IFOR(IP)=IP
      IFOR(IP-1)=1
200      CONTINUE
      ICALL=10
      CALL GCPRINT(IP)
      IOTA=IOTA+1
      RETURN
      END

```

```

18000
19000
20000
21000
22000
23000
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25000
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63000

```


5-4TS INITASOM

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

INITASOM

BAIDAYA

4

CONTROL

PERFORM

POTENT

Z

DEBUS

PRINT

EXTERNAL SYMBOLS

0000ICT.

0000PRINT

0020S
0000A

IDENT

INITASOM

21534

13544

00016

00005

00332

07641

00025

00002

11/26/71

ED

0

PAGE NO.

3

1982

5.415 INITASAM

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C00450 AGE	00172								
P00170 BEGIN.									
C05470 CONTRVLC									
P00200 COUNT.	00027	00030	00040	00041	00077	00100			
C00007 DELAGE									
C00008 DESIG									
P00001 DICT.	00004	00017	00143						
C13543 DLAY									
C16517 DLOWC									
P00171 EMOING.	00007	00167	00170	00171	00171				
P00000 EXIT.	00175								
C00012 EXTRAS									
C10024 FLAG									
P00003 FORMAT.									
C00005 FRACLOCK									
X00002 OOPRINT									
P00201 I	00016	00162	00035	00040	00051	00054	00063	00077	00103
	00024	00030							00133
	00155								00142
C14517 IRACK	00044	00045	00071	00071	00115	00115	00117	00117	00146
	00151								00146
C00001 IR00ST	00032	00067	00067						00150
C00001 ICALL	00015	00015	00160	00161					
C00001 ICANTRON	00014								
C00003 IDUM									
C13543 IFOR									
C00221 IFREE	00045	00072	00121	00121	00123	00124	00152	00153	00154
C00015 IGENO									
C00014 IGSTART									
C00005 IMIT									
C00001 IMUST									
C00003 IMOCK									
P00004 INITASAM									
P00170 INITIAL.									
C00304 INTENSE									
C00006 IOYA	00010	00011	00013	00013	00013	00105	00105	00164	
P00202 IP	00050	00053	00054	00065	00065	00064	00070	00101	00114
	00116	00120	00123	00131	00132	00133	00145	00147	
C00002 IPOT									
C01751 ISTATUS	00042	00043	00095	00095	00134	00104	00134	00134	
P00203 ITOP	00064	00100	00150						
P00031 -10									
P00032 -109									
P00027 -110									
P00044 -20									
P00155 -200									
P00003 -100000									
P00204 J	00124	00126							
C00002 JCORR	00012								
C00001 JGROUP	00074								
C21435 LIFIX									
C00304 LOST									
C21453 LRAIO									
C00000 MAYROOST									
C00004 MAYFOOT									

1983

5.4TS INITASOM

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C03001	MAXINT								
C03002	MAXPOT								
C00136	MISS								
C00001	MA2V								
C00000	MASON								
C04705	MOEX								
C04051	MOEIR								
C05215	MOEXT								
C04795	MODEVAL								
C00002	MEYRA								
C00220	MFREE								
C00064	MHIT								
C04303	ML05T								
C00135	MMISS								
C00013	MOX								
C00003	MOLU								
C00004	MPASS								
C00000	MT								
C00765	MTB								
C21454	MTMAK								
C00000	MV								
C00003	PEYRA								
C00011	PM								
C00010	PURGE								
K00001	Q0001CT.								
C02737	R								
C10627	RYAL								
C12734	TASK								
C02737	TBLAT								
C05673	TBLONG								
C05673	TNETA								
C00111	TDFLY								
P00034	T500001.								
P00047	T500002.								
P00156	T500003.								
P00125	T500004.								
C00002	TVAL								
C00001	VAL20M								
C00004	VAL0L								
P00031	W500001.								
P00042	W500002.								
P00052	W500003.								
P00101	W500004.								
	00136 SYMBOLS								

```

SUMROUTINE INPOT
C SUBR      INPOT      1JUN71      .....
C
C CUSE      MAIDATA    1JUN71      .....
C
COMMON/ MAIDATA/ MT, JGROUP, JCOMM, INDEX(1500), TOTLAT(1500),
1  . TOTLONG(1500), RVAL(1500), OLAT(1500), OLONG(1500),
2  . LRAID, MTMAX, LFIX(1500)
C
C DIMENSION RI(1500), THETA(1500), IPOR(1500), IBACK(1500), IDUM(10)
C
EQUIVALENCE (R, TOTLAT), (THETA, TOTLONG), (IPOR, OLAT), (IBACK,
1  OLONG), (IDUM, INDEX)
C
C TYPE LOGICAL LFIX
C
COMMON/4/ DESIG(1500), TASK(1500), CMTTLOC(1500), FLAG(1500)
C
C MAIDATA .....
C CONTROL 1JUN71 .....
COMMON /CONTROL/ MV, NAVY, MEXTRA, PETRA, MPASS, FRACLOCK,
1  MAXFOOT, DELAY, PUMME, PM, EXTRAS, MOR
2  , ISTART, IEND
C
C CONTROL .....
C INDEX 1JUN71 .....
COMMON /INDEX/ JINR, JINP, JOUT, JOUTP, JSAVE(26), NLSAVE,
1  JSAVOPT
C
C INDEX .....
C POTENT 1JUN71 .....
COMMON /POTENT/ MAXPOT, MAXMIT, IPOT(50), MMIT, IMIT(20), TOTLV(20)
1  , MISS, MISS(50), MPREE, IPREE(50), MLOST, LOST(50), INVERSE(50)
2  , AGE(50)
C
C POTENT .....
C MPOTBT 1JUN71 .....
COMMON /MPOTBT/ IPOTBT, JMT, JOTD, MUMPOST
C
C MPOTBT .....
C IEVAL 1JUN71 .....
COMMON /1/ VAL(50), JASTER(50), VAL/125(50), COSTEFF(20),
1  O(50, 50)
C
C IEVAL .....
C ZSTATUS 1JUN71 .....
COMMON/ 2/ MAXRCOST, IBOOST(500), MTB(500)
1  , ISTATUS(1500), INDEX(1500)
C
C DIMENSION INDEXVAL(50), INDEX(50), INDEX(50)
C
EQUIVALENCE (INDEX, INDEXVAL), (INDEX(101), INDEXM), (INDEX(201), INDEXT)
C
C ZSTATUS .....
C SCOMP 1JUN71 .....
COMMON /3/ MP(50), TP(50), RVALP(50), SINES(50), COSINES(50),
1  AVMP, AVTMP, MMIT, TMIT, SIMAV, COSAV, SIMMIT, COSIMMIT, TMELB
C
C SCOMP .....
C DEMUS 1JUN71 .....
COMMON /DEMUS/ IOTA, ICAMFTRON(20)

```

11/26/71

```

CEND      DEBUG      *****
CUSE      PRINT      IJUNT1 *****
COMMON /PRINT/ ICALL, INTRST *****
CEND      PRINT      *****
C          ADDS TARGETS TO MISS LIST
C          IOTA = IOTA + 1
          ICAMFROM(IOTA) = RHINPOT
          ICALL = 23
          CALL GORPRINT(10)
C
          JR = JINR
          JINP = IFREE(MFREE)
          MFREE = MFREE - 1
          JP = JINP
          IF (ISTATUS(JR)) 200, 9000, 100
          100 IF (LSAVOPT .GT. 0) 110, 120
          110 MJSAVE = MJSAVE + 1
          JSAVE(MJSAVE) = JP
          120 JTOTD = JR
          CALL REMOVE
C          200 ISTATUS(JR) = 0
          MISS = MISS + 1
          MISS(MISS) = JP
          INVERSE(JP) = - MISS
          RP(JP) = R(JR)
          TP(JP) = THETA(JR)
          AGE(JP) = 1.0
          RVALP(JP) = RVAL(JR)
          SINES(JP) = SINF(TP(JP))
          COSINES(JP) = COSP(TP(JP))
          VAL(JP) = 0.
          IPOT(JP) = JR
          ICALL = 40
          GO TO 9999
C
C          ENTRY OUTPUT
C          THIS ENTRY REMOVES TARGETS FROM MISS LIST
C          IOTA = IOTA + 1
          ICAMFROM(IOTA) = RHOUTPOT
          ICALL = 24
          CALL GORPRINT(10)
C
          JP = JOUTP
          JR = IPOT(JP)
          JOUTR = JR
          IF (ISTATUS(JR)) 9000, 300, 9000
          300 INOW = -INVERSE(JP)
          IF (INOW .LE. 0) 9000, 310
          310 MISS = MISS - 1
          DO 320 I = INOW, MISS

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```

      VAL(I) = VAL (I+1)
      MISS(I) = MISS(I+1)
320 INVERSE(MISS(I)) = -I
      INPREE = INPREE + 1
      IFREE(INPREE) = JP
      INVERSE(JP) = 0
      AGE(JP) = 0.0
      VALFINT(JP) = 0.
      JAFTE(JP) = -1
      RP(JP) = TP(JP) = EVALP(JP) = SINES(JP) = 0.0
      COSINES(JP) = 1.0
      IPOT(JP) = 3
      ISTATUS(JP) = -2
      ICALL = 41
      GO TO 9000
C
9000 PRINT 9001
9001 FORMAT(//1A,15(1H0),02M STATUS OR INDEXING ERROR IN INPUT/OUTPUT .
      , 15(1H0))
      IMUST = 1
C
9000 CALL GPRINT(118)
      CALL GPRINT(113)
      IMUST = 0
      CALL GPRINT(117)
      TOTL = TOTL + 1
      RETURN
      END

```

65000
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92000

5.ATS INPUT

11/26/71

ED

0

PAGE NO.

4

IDENT 1/807

PROGRAM LENGTH
ENTRY POINTS

00102
00035
02131

BLOCK NAMES

RAIDATA 21534
4 13540
CONTROL 00016
INDEX 00032
POTENT 00532
MPNTAT 00004
1 05156
2 07641
3 00407
DEBAG 00025
PRINT 00002

EXTERNAL SYMBOLS

THEND.
00071CT.
0004TNT
REMOVE
SIMP
COSF
STH.

5.4YS

1001

11/24/77:

2004

5

CODE	AGE	00112	00113	00216	00117	00122	00133	00144	00237	00242	00246	00251
C00450	AGE											
C00372	AVRP											
C00373	AVTAS											
P00263	RESID.	00264										
C00878	CHRYLOC											
C00377	CO3AV											
X00004	COSF	00121	00225	00226								
C00310	COSIMF3	00123										
C00461	COSIMMIT											
C00226	COSTEFF											
P00275	COUNT.	00173	00174									
P00003	CWENT.	00263										
C00252	D											
C00007	DELAOF											
C00000	RESIO											
P00001	DICT.	00032	00043	00073	00117	00122	00133	00144	00237	00242	00246	00251
C13563	DLAT	00256										
C10517	DLONG											
P00265	ENDING.	00033	00134	00262	00263	00264						
P00004	EXIT.	00266										
C00012	EXTRAN											
C10624	FLA4											
P00203	FORMAT.	00034	00137									
C00495	FRACLOK											
P00253	0000000.	00235										
X00003	GOVERNIT	00042	00143	00245	00250	00255						
P00276	I	00178	00173	00202	00205							
C10517	IRACK											
C00001	IMOO5T											
C00000	ICALL	00041	00041	00127	00130	00142	00142	00233	00233			
C00001	ICAMFROM	00046	00141									
C00003	IDUM											
C13563	IFON	00050	00213									
C00221	IFREE											
C00015	IOEND											
C00014	IOSTART											
C00005	INIT											
C00001	IM05T	00243	00244	00253	00254							
C00003	IM00X											
P00263	INITIAL.	00033	00134									
P00277	INOV	00161	00162	00167	00172							
P00030	INOT	00030										
C00366	INVERSE	00104	00105	00108	00100	00203	00204	00215	00215			
C00000	IDTA	00034	00034	00035	00037	00037	00135	00135	00136	00140	00140	00240
		00246	00261									
		00126	00126	00150	00151	00227	00227					
C00002	IPOT											
C00000	IPOTAT											
C01751	ISTATUS	00054	00054	00075	00076	00154	00155	00231	00232			
P00060	.100											
P00043	.110			</								

1989

5.475

IMPOT

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ED

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7

C00374	RMT				
C00020	RP	00106	00107	00224	
C10027	RVAL	00113	00114		
C00144	RVALP	00114	00115	00223	
C00376	SINAV				
C00226	SINES	00126	00222	00222	
X00005	SINS	00116			
C00400	SINMIT				
X00007	STM.	00236			
C02734	TASK				
C02737	TGTLAT				
C05673	TGTLONG				
X00001	TMEAO.	00241			
C05673	TMETA	00107	00110		
C00375	THIT				
C00492	THOLD				
C00111	TOFLY				
C00062	TP	00119	00111	00115	00120 00223
P00207	TSC0001.	00172			
C00000	VAL	00124	00124	00175	00176
C00144	VALFIRST	00217	00220		
P00173	CS00001.	00206			

00230 SYMBOLS

1991

PTW.S

11/20/71

PAGE NO. 1

SUBROUTINE LOADHEAD
LOADHEAD 1,UNIT1
ENTRY PRETLOAD
X = 1.
RETURN
END

1000
44000
2000
3400
4000
5000

1992

IDENT LOADREAD

PROGRAM LENGTH 00022
 ENTRY POINTS LOADREAD 00003
 EXTERNAL SYMBOLS PRINTLOAD 00010
 ORBOICT.

5.ATS LOADREAD

11/26/73

ED

0

PAGE NO.

3

P00016 BEGIN.	00016	
P00017 DICT.	00005	
P00018 ENDING.	00006	
P00019 EXIT.	00017	00015
P00020 INITIAL.	00004	
P00021 LOADREAD	00003	
P00022 DEVELOP.	00010	
X00001 C-00010.	00010	00011
P00021 X	00013	
00011 SYMBOLS		

```

SUBROUTINE LREORDER(ISEQ, N, LOGAR)
  CSUBR  LREORDEN LJUN71 *****
  C
  C THIS ROUTINE REORDERS A LOGICAL ARRAY ACCORDING TO THE SEQUENCE
  C ARRAY, ISEQ. THE ALGORITHM IS THE SAME AS USED IN SUBROUTINE
  C REORDER.
  C
  C DIMENSION LOGAR(N), ISEQ(N)
  C TYPE LOGICAL LOGAR, L
  C
  10 I = 1
  20 IF (I - ISEQ(I)) 30, 70, 30
  30 IF (ISEQ(I)) 70, 70, 40
  40 ITEMP = I
  50 L = LOGAR(I)
  60 NEXT = ISEQ(I)
  70 ISEQ(I) = -ISEQ(I)
  80 LOGAR(I) = LOGAR(NEXT)
  90 I = NEXT
  100 IF (ISEQ(I) - ITEMP) 50, 60, 50
  110 ISEQ(I) = -ISEQ(I)
  120 LOGAR(I) = L
  130 GO TO 10
  C
  140 IF (I - N) 80, 90, 90
  150 I = I + 1
  160 GO TO 20
  170 DO 100 J = 1, N
  180 ISEQ(J) = XABSF(ISEQ(J))
  190 RETURN
  200 ENO

```

1000
5500
2003
3000
4000
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6000
7000
8000
9000
10000
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18000
19000
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5.4TS LREORDER

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ED 0

PAGE NO.

2

IDENT LREORDER

00175
00003

PROGRAM LENGTH
ENTRY POINTS
EXTERNAL SYMBOLS

LREORDER

03000000

03010000

00000000

1996

5.475 LMEORDER

11/24/71 ED 0 PAGE NO. 3

P00100	DEGIN.	00132	00160	00164					
P00170	COMT.	00070	00371	00104					
P00001	DICT.	00005	00103	00104					
P00133	ENDIME.	00006	00076	00100	00101	00101	00192	00102	
P00000	EXIT.	00156							
P00012	F000001.	00132	00133						
P00016	F000002.	00114	00115						
P00023	F000003.	00146							
P00027	F000004.	00116	00117						
P00031	F000005.	00120	00121						
P00032	F000006.	00122	00123						
P00035	F000007.	00167							
P00037	F000010.	00150							
P00041	F000011.	00134	00135						
P00046	F000012.	00126	00127						
P00047	F000013.	00130	00131						
P00053	F000014.	00151							
P00056	F000015.	00140	00141						
P00060	F000016.	00142	00143						
P00072	F000017.	00112	00113						
P00074	F000020.	00124	00125						
P00167	GETPL.	00185	00136						
P00157	GETPU.	00110	00144	00163	00015	00020	00021	00026	00040 00041 00045 00055
P00171	I	00010	00011	00012	00012	00032	00042	00046	00047 00072 00074
P00100	INITIAL.	00041	00062						
P00003	ISED	00006	00016						
P00172	ITEMP	00013	00016						
P00072	.100	00021	00043						
P00007	.10	00054							
P00011	.20	00063							
P00015	.30	00014							
P00020	.40								
P00026	.50	00044	00044						
P00045	.60	00043							
P00055	.70	00013	00017	00017					
P00051	.80	00057							
P00064	.90	00057	00060						
P00173	J	00005	00071						
P00077	L	00025	00051						
P00003	LOGAR	00023	00035	00037	00053				
P00003	LME.OER	00003							
P00003	N	00054	00064						
P00174	MEY	00030	00033	00040					
P00136	PF00002.	00111							
P00144	PF00003.	00137							
P00152	PF00004.	00105							
X00001	Q3000040	00022							
X00002	Q3010040	00024	00030	00050					
X00003	Q0000000	00000	00004	00052					
P00076	TS00001.	00007							
P00072	VS00001.	00075							
00053	SYMBOLS								

11/24/71

```

SUBROUTINE NEWCOORD(18)
C SUBR NEWCOORD 1JUN71
C
C USE TAPES 1JUN71
C
COMMON/FILES/ TGFILE(2), NASFIL(2), NSLTIME(2), ALOCTAR(2),
1 TMAPLOC(2), ALOCGRP(2), STRFIL(2), EVENTAPE, PLANTAPE
C
C TYPE INTEGER TGFILE, NASFIL, NSLTIME, ALOCTAR, TMAPLOC,
1 ALOCGRP, STRFIL, EVENTAPE, PLANTAPE
C
COMMON/TSRATCH/ ISCR, ITARL
C
C TAPES
C MPGRPX 1JUN71
COMMON/MPGRPX/ MPGRS(200), MVENGRP(200), WLAT(200), WLONG(200),
1 ITYPE(200), IPAT(200), ICLASS(80), ISINTYPE(80),
2 IMIN(40)
C
C MPGRPX
C RAIDATA 1JUN71
COMMON/ RAIDATA/ NT, JSROUP, JCOMP, INDEX(1500), TGTLAT(1500),
1 TGTLONG(1500), RVAL(1500), DLAT(1500), DLONG(1500),
2 LRAID, NTRAX, LRFIX(1500)
C
C DIMENSION R(1500), TWETA(1500), IFOR(1500), IBACK(1500), IOUN(16)
C EQUIVALENCE (R, TGTLAT), (TWETA, TGTLONG), (IFOR, DLAT), (IBACK,
1 DLONG), (IOUN, INDEX)
C
C TYPE LOGICAL LRFIX
C
COMMON/4/ DESIG(1500), TASK(1500), CNTRYLOC(1500), FLAG(1500)
C
C RAIDATA
C EARTH 1JUN71
COMMON/ EARTH/ RADIUS, DESTORAD, PI, P1012
C
C EARTH
C STATUS 1JUN71
COMMON/ 2/ MAXRCOST, IRCOST(500), NTR(500),
1 ISTATUS(1500), MOEX(1500)
C
C DIMENSION MOEXVAL(50), MOEXR(50), MOEXT(50)
C EQUIVALENCE (MOEX, MOEXVAL), (MOEXR(10), MOEXR(20), MOEXT)
C
C STATUS
C DEBUG 1JUN71
COMMON/ DEBUG/ IOTA, ICAMPROM(20)
C
C DEBUG
C PRINT 1JUN71
COMMON/ PRINT/ ICALL, INDJST
C
C PRINT
C TAPENAMP 1JUN71
COMMON/ ITP/ ITP

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```

COMMON /TWOORD/ TWOORD
EQUIVALENCE (ITWOORD, TWOORD)
COMMON /MYIDENT/ MYIDENT
COMMON /NOPRINT/ NOPRINT
COMMON /PRINTPT/ PRINTPT(10)
COMMON /ILABE / INIDENT, INLABORD, INQATE, INFORM, INSECC,
1 INTIME, INLENGTH, INCDIM(5)
COMMON /MYLABEL/ MYFORM, MYSECR, MYLENGTH, MYCOMM(5)

C
C      TAPEMARK *****
C      IOTA=IOTA+1
C      ICAMPRM(IOTA)=SHRMCORR
C      ICALL=26
C      CALL GOMINT(10)

C      WEST=MLONG(10)-184.
C      EAST=MLONG(10)-163.
C      DO 100 I=1,NT
C      TLAT=TB(LAT(I))+DLAT(I)
C      TLONG=TB(LONG(I))+DLONG(I)
C      R(I)=0.15*TB(LAT(I))+MLONG(10)+TLAT,TLONG
C      A=PI(I)*2-(TLAT+DLAT)
C      C=PI(I)*2-(TLAT+DLAT)
C      B=R(I)/RADIUS
C      ANGLE=(COSF(A)-(COSF(B)+COSF(C)))/(SINF(B)+SINF(C))
C      IF (ABSF(ANGLE).GT.1.00) 2,4
C      2 ANGLE=1.00
C      4 THETA(I)=ACOSF(ANGLE)
C      IF ((TLONG-L7+MLONG(10)).AND.(TLONG-ET.EAST)).OR.((TLONG-ET+MLONG(
116)).AND.(TLONG-ET+WEST))100,10
10 THETA(I)=THETA(I)
100 CONTINUE
CALL ORDER(THETA,NOEX,NT)
ICALL=7
CALL GOMINT(1)
ITP=ISCR
MYIDENT = MYORATCH
CALL MBRWAY(MOEX,NT)
CALL REORDER(MOEX,NT,3,0,THETA,RVAL,0.0,0.0)
CALL LREORDER(MOEX, NT, LFIX)
ICALL=8
CALL GOMINT(7)
IOTA=IOTA+1
RETURN
END

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IDENT NEWCOOR

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	NEWCOOR	IDENT	NEWCOOR
		00263	
		00005	
FILES		00020	
TSCRATCH		00002	
MPWMPX		02378	
RAIDATA		21334	
4		13-60	
EARTH		00004	
2		07-61	
DEBUG		00005	
PRINT		00002	
TTP		00 01	
TWORO		00 01	
MYIDENT		00 01	
MODPRINT		00 01	
IFTPRINT		00 12	
FILELREL		00014	
MYLAREL		00010	

EXTERNAL SYMBOLS

GMDICT.
 GMDPINT
 D15TP
 CROCK
 WRAKRAY
 REDDAPER
 LINEORDER
 STMF
 COSF
 ACOSF

5.4TS MEMCOM

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EO

0

PAGE NO.

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P00251 A	00056	00066				
X00012 ACOSF	00124					
C00006 ALOCTAR						
P00252 AMBLE	00111	00116	00117			
P00253 R	00005	00071	00101			
C00002 BIASFILE						
P00255 REGIM.	00223	00231	00235			
P00254 C	00062	00074	00104			
C00010 CMTWLOC						
X00011 COSF	00007	00072	00075			
P00255 COUNT.	00033	00034				
C00001 DESTOMAN	00054	00054	00060			
C00000 DESIG						
P00001 DICT.	00007	00020	00047	00070	00073	00076
	00140	00163	00172	00200	00210	00211
	00044					
X00001 DISTIF						
C10000 FLAT	00046					
C10017 DLONG	00022					
P00256 EAST	00027	00127				
P00224 ENOIMS.	00010	00204				
C00010 EVENTAPE						
P00000 EXIT.	00227					
C10024 FLAG						
P00003 FORMAT.	00013	00195				
P00022 F00001.	00217	00220				
P00034 F00002.	00221	00222				
P00244 OCTPL.	00212					
P00230 OCTPU.	00215	00234				
X00002 OOPRINT	00017	00150	00177			
P00257 I	00030	00034				
C10017 IBACK						
C00001 IBROST						
C00000 ICALL	00014	00016	00104	00167	00175	00176
C00001 ICANTRON	00015					
C00204 ICLASS						
C00003 IDUM						
P00126 IF00001.						
P00131 IF00002.						
P00134 IF00003.						
C10043 IFOR						
C00006 IFTWNT	00125	00125	00127			
P00003 IG						
C00003 IG	00022	00035				
C00001 IMIRV						
C00001 IMUST						
C00007 INCOMM						
C00002 INDATE						
C00003 INDEX						
C00003 INFORM						
C00000 INIDENT						
P00205 INITIAL.						
C00004 INLWTH	00010					
C00001 INNUMO						
C00004 INSEOR						

5.435 NEWCOOR

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ED 0

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C00005	INTIME	00011	00011	00012	00014	00014	00202	00202	00203
C00006	IOTA	00153	00153						
C01750	IPAY								
C00000	ISCR								
C02400	ISIMTYPE								
C01751	ISTATUS								
C00001	ITABL								
C00000	ITD	00154	00154						
C00000	ITWNO								
C01440	ITYPE								
P00137	-10	00133	00133	00135	00136				
P00141	-100	00130	00136						
P00115	.2								
P00117	.4	00114	00114						
P00241	.ERASER.	00071	00074	00077	00100	00100	00104	00107	00110
P00063	..100000	00013							00110
P00004	..100001	00155							
P00056	.Z00001.	00044	00045						
C00002	JCORR								
C00001	JGROUP								
C21455	LIFIX	00174							
C21453	LRAID								
X00007	LREORDER	00171							
C00000	MAKBOOST								
C00004	MSLTIME								
C00003	MYCOMM								
C00000	MYFORM								
C00000	MYINENT	00156	00156						
C00002	MYLNGTH								
C00001	MYSECP								
C04705	NDEX	00144	00161	00164	00173				
C05051	NDEAR								
C05215	NDEXT								
C04705	NDFIVAL								
R00005	NEWCOOR	00005							
C00000	NOPRINT	00031	00031	00145	00161	00164	00173		
C00000	NT								
C00765	NTB								
C21454	NTMAX								
C00310	NVEMGRP								
C00000	NWPKS								
X00004	ORDER	00142							
P00223	PR00002.	00216							
C00002	PI								
C00003	PIDIV2	00055	1 21						
C00017	PLANTAF								
X00001	Q0001CT.								
C00737	R	00000	00000	00063	00063	00165			
C00000	RADIUS	00052	00052						
X00006	REORDER	00064	00064						
C10027	RVAL	00162							
X00010	SJNF	00164							
C00014	STRKFIL	00102	00105						
C00734	TASK								

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5.4TS MEMCOOR

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C30008 TGTFILE	00037	00037			
C02737 TGTLAY	00041	00042			
C05673 TGTLOW8	00122	00122	00144	00166	
C05673 TACTA	00041	00051			
P00260 TLAY	00043	00123	00131	00134	
P00261 TLOW6					
C00610 TMAPALOC	00032				
P00142 TSPC001.					
C05000 TMOCH	00025	00135			
P00262 WEST	00044	00050	00124	00132	00132
C00420 WLAY	00023	00024	00045	00050	00124
C01150 WLOW6	00157	00057			
X00005 WHARRAY	00157	00025			
P00037 W500001-	00141				
00171 SYMBOLS					

```

SUMROUTINE OPTROOST
CSEMO  -PTROOST 1JUN71
CUSE  STRESUM 1JUN71
C      COMMON/STRESUM/ KORRUP, NTSTRK, NCCORR, NSTRK(30), LSTRCSUM
C
C      STRESUM
C      RAIDATA 1JUN71
C
C      COMMON/ RAIDATA/ WT, JGRGUP, JCORR, INDEX(1500), INTLAY(1500)
C      1, TGLONG(1500), RVAL(1500), DLAT(1500), DLONG(1500)
C      2, LRAD, MTMAX, LLFIX(1500)
C
C      DIMENSION R(1500), TMTA(1500), IFOR(1500), IBACK(1500), IDUM(16)
C      EQUIVALENCE (R, TGLAT), (TMTA, TGLONG), (IFOR, DLAT), (IBACK,
C      IDLONG), (IDUM, INDEX)
C
C      TYPE LOGICAL LLFIX
C
C      COMMON/4/ DESIG(1500), TASK(1500), CNTRY_OC(1500), FLAG(1500)
C
C      RAIDATA
C      CONTROL 1JUN71
C      COMMON /CONTROL/ NV, WRY, WPTRA, PEITRA, WP255, FRACLOOM,
C      1, MAXFOOT, DELAGE, PUMEE, PM, EXTRAS, NOK
C      2, SIGSTART, IGEMO
C
C      CONTROL
C      FOOTIO 1JUN71
C      COMMON /FOOTIO/ MAXRV, ISYS, MTAP, RIN(20), THIN(20), IFEAS,
C      1, DELSTRT, DELRAFT(20), FUELEFT
C      FOOTIO
C      FOOTSAVE 1JUN71
C      COMMON/FOOTSAVE/ IFCISAVE(20), MMITOLD, VMITOLD, IFEZSAFE(20),
C      1, NZSAFE
C      FOOTSAVE
C      INDEX 1JUN71
C      COMMON /INDEX/ JINR, JINP, JOUTR, JOUTP, JSAVE(20), NJSAVE,
C      1, JSAVOPT
C      INDEX
C      LOADATA 1JUN71
C      COMMON /LOADATA/ LOADOPT, MRVALDO(1500), NADDED, MTODDO, MONTAR(20)
C      1, NADDOOLD
C
C      LOADATA
C      PARAMETR 1JUN71
C      COMMON /PARAMETR/ MAXSYS, INHME(40), MIN_OAD(40), MAX_OAD(40),
C      1, OSPACE(40), THROPMAX(40), MTYPE(40), IDATA(40)
C      PARAMETR
C      POTENT 1JUN71
C      COMMON /POTENT/ MAXPOT, MAXHIT, IPOT(50), MHIT, IMT(20), TOPY(20)
C      1, NMIS, MISS(50), WFREE, IFREE(50), MLOST, LOST(50), INVERSE(50)
C      2, AGE(50)
C      - POTENT

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CUSE  MONTEY 1JUN71 .....
COMMON /PNTGT/ IPOTGT, JFT, JTG  NUPROOST
CEND  PNTGT .....
CUSE  IEVAL 1JUN71 .....
COMMON /1/ VAL(50), JAFTR(50), VALFST(50), COSTEFF(20),
1 D(50, 50) .....
CEND  IEVAL .....
CUSE  ZSTATUS 1JUN71 .....
C      COMMON/ 2/ MAXROOST, IROOST(500), MTM(500)
1      , ISTATUS(1500), MOEX(1500)
C      DIMENSION MOEXVAL(50), MOEXR(50), MOEXY(50)
C      EQUIVALENCE (MOEX, MOEXVAL), (MOEX(10), MOEXR(10), MOEXY(10), MOEXR(10), MOEXY(10))
C      ZSTATUS .....
C      3COMP 1JUN71 .....
COMMON /3/ RP(50), TP(50), RVALP(50), SINES(50), COSINES(50),
1 AVRP, AVTHP, RHIT, THIT, SINAV, COSAV, SINMIT, COSMIT, THOLD
C      3COMP .....
C      DEUG 1JUN71 .....
COMMON /DEUG/ IOTA, ICAMFRO(29)
C      DEUG .....
C      PRINT 1JUN71 .....
COMMON /PRINT/ ICALL, IMUST
C      PRINT .....
C      CALCULATES OPTIMAL FOOTPRINT FOR THIS BOOSTER
C      IOTA = IOTA * 1
C      ICAMFRO(IOTA) = BHOPTROOST
C      ICALL = 17
C      CALL GPRINT(10)
C      FIND BEST INITIAL POINT
C      IFOT = 1
C      IF (IMISS .LT. 1) 9000, 13
10 DO 20 I = 1, NMISS
20 MOEXVAL(I) = MISS(MOEXVAL(I))
C      NOLD = NMISS
C      JONE = 0
30 JONE = JONE * 1
C      JFT = 0
C      IPOTGT = MOEXVAL(JONE)
C      CALL MTTT
C      CALL TEST
C      IF (IFRAS .LT. 1) 40, 60
40 CALL MISSIT
C      IF (JONE .EQ. NOLD) 50, 30
50 IF (IFOT .GT. 1) 190, 51
51 PRINT 52, NUPROOST, KGROUP
52 FORMAT(//1A, 15(1M), 23M WARNING - BOOSTER NO. 13, 14M OF GROUP ,
1 12:30M CAN REACH NO TARGETS IN ITS SECTOR , 15(1M))
C      IMUST = 1

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80 TO 9999
68 CALL REVAL
  ICALL = 13
  CALL GPRINT(115)
  CALL GPRINT(20)
  JADD = 0
  DO 65 I = 1, NMIS
    MOEXVAL(I) = MISS(MOEXVAL(I))
  C
  C   FIND BEST TARGET TO ADD NEXT
  C
  76 JADD = JADD + 1
  IF (JADD .GT. NMIS) 170, 80
  80 J = MOEXVAL(JADD)
  JFT = JAFYR(I)
  IF (JFT .LT. 0) 7C, 110
  110 IPOGT = J
  CALL MITY
  CALL YES
  IF (IFEAS .LT. NMIT) 120, 130
  120 IPOGT = J
  CALL MISSIT
  90 TO 70
  130 IF (JFT .LE. 0) 140, 150
  140 CALL PFVAL
  60 TO 100
  150 CALL EVAL
  160 JADD = 0
  DO 165 I = 1, NMIS
    MOEXVAL(I) = MISS(MOEXVAL(I))
  IF (NMIT .LT. MAXLOAD(SYS)) 70, 170
  C
  C   IMPROVE PRESENT FOOTPRINT
  C
  170 90 TO (180, 187, 9999), IFPOOT
  180 CALL IMPROVE
  190 90 TO (200, 300, 9999), IFPOOT
  C
  C   FIRST FOOTPRINT - SAVE IF MORE TO COME
  C
  200 ICALL = 48
  CALL GPRINT(11)
  IFPOOT = IFPOOT + 1
  IF ((IFPOOT .LE. XAHSE(MAXFOOT)) .AND. (NMIS .GE. NMIT)) 210, 370
  210 NMITOLD = 0
  DO 220 I = 1, NMIT
    NMITOLD = NMITOLD + KVALP(IMIT(I))
  220 IF (SAVE(I) = IMIT(I))
    NMITOLD = NMIT
  NMIT = 0
  MZSAVE = 0
  ICALL = 67
  CALL GPRINT(19)
  IF (NMIS .GT. 0) 230, 190
  230 CALL EVAL
  90 TO 10

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C
C SECOND FOOTPRINT
C
300 ICALL = 49
    CALL GPRINT(11)
    IF (NMIT .LT. NMITOLD) 330, 210
310 IF (NMIT .GT. NMITOLD) 352, 312
312 NMIT = 0.
    DO 320 I = 1, NMIT
320 NMIT = NMIT + NVALP(NMIT(1))
    IF (NMIT .GT. NMITOLD) 352, 330
C
C RETURN AND USE FIRST PLAN
C
330 NMITX = NMIT
    DO 340 I = 1, NMITX
    IPOTGT = NMIT(1)
340 CALL MISSIT
    DO 350 I = 1, NMITOLD
350 NMIT(1) = IFOSAVE(I)
    NMIT = NMITOLD
    CALL TEST
    CALL REVAL
    GO TO 360
C
C USE SECOND PLAN
C
352 DO 353 I = 1, NMIT
353 IF2SAVE(I) = NMIT(I)
    N2SAVE = NMIT
    ICALL = 68
    CALL GPRINT(10)
    DO 354 I = 1, NMITOLD
354 NMIT(1) = IFOSAVE(I)
    NMIT = NMITOLD
    NMITX = NMIT
    DO 355 I = 1, NMITX
    IPOTGT = NMIT(1)
355 CALL MISSIT
    DO 356 I = 1, N2SAVE
356 NMIT(1) = IF2SAVE(I)
    NMIT = N2SAVE
C
360 IF (NMIT .LT. MAXLOAD(155)) 370, 999C
370 IFOOT = IFOOT + 1
    IF (MAXFOOT .LT. 0) 9999, 320
C
C LOOK AHEAD TO NEXT ROOSTER SECTOR
C
380 IF (NMIT .LT. 1) 999, 385
385 JSAYOPT = 1
    NNEW = NUMROOST + 1
    IF (NPA55 .EQ. 2) 390, 400
390 NNEW = NUMROOST - 1
400 IF (NNEW .LE. 0) .OR. (NNEW .GT. NV) 9999, 405
405 TOP = IROOST(NNEW)

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5.415 OPTPOOST

	11/26/71	ED	8	PAGE NO.	8
C000F3 IFEAS	00161	00262	00242	01021	01021
P01111 IF00Y	00123	00324	00332	00344	00373
C12563 IF0R	00641	00641			
C00000 IF0TSAVF	00374	00475	00475	00535	00636
	00642	00653	00726	00726	00842
C00221 IFREE					
C00015 IGENO	00325	00333	00656		
P01112 I0010.					
C00014 I0T0ART	00364	00373	00373	00442	00476
C00005 IMIT	00515	00536	00545	00545	00815
C00001 IMNAME					
X00012 IMPROVE	00333				
C00001 IMUST	00206	00207	01007	01010	01044
C00003 IMPEX					
P01004 IMITIAL.	00110				
X00014 IMPOT	00736				
C00366 INVERSE					
C00000 IOTA	00111	00112	00114	00114	01057
C00002 IPOT					01040
C00000 IPOTBT	00153	00154	00255	00266	00462
C01751 ISTATUS					00546
C00001 ISYS	00320	00320	00567	01046	00544
P01113 ITOP	00624	00627			
P00127 .10	00125	00125	00415		
P00254 .110	00252	00252			
P00265 .120					
P00272 .130	00264	00264			
P00275 .140	00273				
P00300 .150	00274				
P00302 .160	00277				
P00311 .165					
P00324 .170	00243	00322	00322		
P00330 .180	00324	00326			
P00332 .190	00173	00411	00412		
P00135 .20					
P00335 .200	00334				
P00355 .210	00353				
P00373 .220					
P00413 .230					
P00146 .30	00170				
P00414 .300	00334				
P00427 .310	00425	00425			
P00433 .312	00431	00431			
P00442 .320					
P00455 .330	00426	00453	00453		
P00463 .340					
P00475 .350					
P00507 .352	00472	00454			
P00515 .353					
P00535 .354					
P00547 .355					
P00561 .356					
P00566 .360	00506				

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P00572	-370	00331	00354						
P00577	-380	00575	00576						
P00602	-385	00600	00601						
P00616	-390								
P00164	-40								
P00613	-400	03607							
P00622	-405	00620	00620						
P00634	-410								
P00651	-420	00647							
P00660	-422								
P00677	-424								
P00704	-426	00657							
P00730	-430								
P00735	-440	00647	00650						
P00766	-450								
P00171	-50	00167							
P00174	-51	00172	00173						
P00210	-60	00162	00163						
P00231	-65								
P00237	-70	00253	00271	00323	00774				
P00244	-80	00242	00243						
P00775	-9000	00126							
P01055	-9994	01053							
P01057	-9995	01053	01054						
P01024	-9996								
P01037	-9998	01023	01023						
P01011	-9999	00207	00327	00335	00571	00576	00601	00610	00615
P01071	-ERASER.	00347	00350	01050	01052				00621
P00003	-100000	00113							
P00304	-52	00177							
P00037	-9001	01000							
P00071	-9997	01027							
P01070	-INSTIFF.								
P01114	J	00137	00233	00233	00313	00313	00346	00370	00444
P01115	JAD0	00640	00725	00770	00770	00770			00840
C00001	JAFT	00246	00247	00254	00265	00662			
C00062	JAFTER	00223	00237	00240	00241	00244			
C00002	JCORR	00150	00151	00250	00251	00272			
C00001	JCORR	00247	00250						
C00001	JIMP								
P01116	JONE	00727	00727						
C00003	JOUTP	00145	00146						
C00002	JOUTR								
C00024	JSAVE								
C00031	JSAVAPT								
C00002	JTGTO	00602	00603						
P01117	K	00472	00675	00700					
C00003	VEROUP	00202	00202	01003	01003				
P01120		00664	00671						
C21455	LLFIX								
C00000	LOANOPT	01051	01251						
C00304	LOST								

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C00003	NUMBOCST	00200	00200	00003	00004	00010	00010	01001
C00000	NV	00617	00517					
P00105	OPT400ST	00104						
X00013	ORDER	00A51						
C00003	PEXTRA							
C00011	PM							
C00010	PURGE							
X00002	01010100	00711						
X00003	0000100	00000	00106					
X00020	0000100	01062						
C02737	R							
X00010	REVAL	00210	00275	00504	00737			
C00374	RHIT							
C00003	RIM							
C00000	RP							
C10627	RVAL							
C00144	RVALP	00370	00371	00445	00446			
C00376	SIMAV							
C00226	SIMES							
C00400	SIMHIT							
X00017	SYM.	00175	00776	01025				
C02734	TASK							
X00005	TEST	00157	00260	00502	01017			
C02737	TGLAY							
C05673	TGLOW8							
X00001	TMEMO.	00204	01005	01030				
C05673	TMETA							
C00327	TMIN							
C00375	TMIT							
C00432	TMOLO	00736	00736					
C0124	TMOLOWAX							
C00111	TOFLY							
C00062	TP							
P00143	T500001.	00132						
P00237	T500002.	00226						
P00317	T500003.	00306						
P00376	T500004.	00361						
P00451	T500005.	00437						
P00466	T500006.	00460						
P00500	T500007.	00472						
P00520	T500010.	00512						
P00540	T500011.	00532						
P00552	T500012.	00544						
P00564	T500013.	00556						
P00644	T500014.	00633						
P00704	T500015.	00666						
P00733	T500016.	00721						
P00774	T500017.	00763						
C00000	V/L							
C00144	VALFIPST							
P01130	VHIT	00434	00444	00447	00451			
C00025	VHITOLD	00355	00356	00366	00367			
P00135	W5. 01.	00142						
P00231	W50002.	00236						

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P00311 WS00003. 00316
P00364 WS00004. 00375
P00442 WS00005. 00450
P00461 WS00006. 00467
P00475 WS00007. 00477
P00515 WS00010. 00517
P00535 WS00011. 00537
P00545 WS00012. 00553
P00561 WS00013. 00563
P00636 WS00014. 00643
P00671 WS00015. 00703
P00722 WS00016. 00734
P00766 WS00017. 00773
X00016 XMINOF 00713
00411 SYMBOLS

2015

```

SUBROUTINE PRINTSET
  CSUHR  PRINTSET 1JUN71
  C
  CUSE  STAKSUM 1JUN71
  C
  C      COMMON/STAKSUM/ GROUP, WTSTK, MCDOR, NSTK(30), LSTAKSUM
  C
  CEND  STAKSUM
  CUSE  CONTROL 1JUN71
  C      COMMON /CONTROL/ NV, NAR/, NEXTRA, PEXTRA, MP,SS, PRACLOW,
  C      1 MAXFOOT, DELAG, PURGE, PH, EXTRAB, NOR
  C      2 IGSTART, IEND
  C
  CEND  CONTROL
  CUSE  WPMGTGT 1JUN71
  C      COMMON /WPMGTGT/ IPOTGT, JFT, JTBID, MUMBOOST
  C
  CEND  WPMGTGT
  CUSE  FLAG 1JUN71
  C      COMMON/FLAG/NFLAG,IFLAG(100),MC,IPRNT(60),IFB(60),IFM(60),
  C      1 ILG(40), ILP(60), ILR(60), MYPRNT(60), IDUMP
  C      TYPE LOGICAL IFLAG
  C      DIMENSION IDUMPR(40,8)
  C      EQUIVALENCE(IDUMPR, IPRNT)
  C      FLAG
  C
  CEND  FLAG
  C
  DO 1 I=1,NFLAG
    1 IFLAG(I)=0
    DO 40 J=1,NC
      IF (KGROUP.GE.IF6(J).OR.IF6(J).EQ.0)5,40
      5 IF (KGROUP.LE.IL6(J).OR.IL6(J).EQ.0)10,40
      10 IF (NPASS.GE.IFP(J).OR.IFP(J).EQ.0)15,40
      15 IF (NPASS.LE.ILP(J).OR.ILP(J).EQ.0)20,40
      20 IF (NUMROOST.GE.IFM(J).OR.IFM(J).EQ.0)25,40
      25 IF (NUMROOST.LE.ILR(J).OR.ILR(J).EQ.0)30,40
      30 IFLAG(IPRNT(J))=1
      40 CONTINUE
    50 DO 55 I=16,35
      55 IFLAG(I)=1
    60 RETURN
  END

```

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5-4TS PRINTSET

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IDENT PRINTSET

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

PRINTSET

STKSUM
CONTROL
WPKTGT
FLAG

EXTERNAL SYMBOLS

Q3010040
Q3000040
Q000101.

00117
00003
00042
00016
00084
00747

P00107	RESIM.	00110	00014	00025	00026
P00114	COUNT.	00013			
P00007	DELAGE				
P00041	DICT.	00005			
P00111	ENDING.	00006	00107		00110
P00000	EXIT.	00112			
C00012	EXTRAH				
C00025	EXACLOOK				
P00117	I	00010	00013	00100	00100
C00000	ICOMM				
C00000	ICOMM				
C00000	ICOMM				
P00001	IF00001.				
P00037	IF00002.				
P00064	IF00003.				
P00051	IF00004.				
P00355	IF00005.				
P00063	IF00006.				
C00072	IFP	00054	00056	00056	00056
C00102	IFG	00030	00032	00032	00032
C00001	IFLAG	00017	00072	00075	00100
C00116	IFP	00067	00044	00044	00044
C00015	IGCAN				
C00014	IGSTART				
C00056	ILB	00061	00063	00063	00063
C00064	ILG	00035	00037	00037	00037
C00062	ILP	00047	00047	00051	00051
P00107	INITIAL.	00006			
C00000	IPOTGT				
C00006	IPRNT	00055	00065		
P00015	.1				
P00041	.10	00036	00036		
P00046	.15	00043	00043		
P00053	.20	00050	00050		
P00060	.25	00055	00055		
P00055	.30	00062	00062		
P00073	.40	00033	00040		
P00034	.5	00031	00031		
P00077	.50	00076			
P00102	.55				
P00104	.60	00074			
P00113	.NSTIFF.	00067	00070		
P00114	J	00022	00025		
C00001	JAFY				
C00002	JTG10				
C00000	KRCPUP	00027	00027	00034	00034
C00041	LSTOKSUM				
C00006	MAXFOOT				
C00452	MYROT				
C00001	NARY				
C00005	NC	00022	00023		
C00002	NCURR				
C00002	NEXTRA				
C00000	NFLAG	00010	00011		
C00013	NOK				

5.4TS PRINTSET

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C00004 NPASS	00041	00041	00040	00046
C00003 NSIRK				
C00001 NTSIRK				
C00003 NUNP00ST	00053	00053	00060	00060
C00000 NV				
C00003 PFTRA				
C00011 PM				
P00003 PRINTSET	00003			
C00010 PURGE				
X00002 Q3C000AD	00074	00071	00103	
X00001 Q30100AD	00016			
X00003 Q30010CT	00000	00004		
P00021 TS00001	00012			
P00074 TS00002	00024			
P00015 W500001	00020			
P00027 W500002	00073			
P00102 W500003	00105			
00107 SY0001S				

```

SUBROUTINE PRINTREQ
  CSJRR      READPRNT IJUN71
  C
  CUSE      FLAG IJUN71
  COMMON/FLAG/MFLAG,(FLAG(100),NC,IPRNT(60),IFG(60),IFP(60),IFB(60),
1 ILG(60),ILP(60),ILR(60),MYPRT(60),IDUMP
  TYPE LOGICAL IFLAG
  DIMENSION IDUMPP(50,8)
  EQUIVALENCE(IDUMPR, IPRNT)
  C
  CEND      FLAG *****
  C
  C MFLAG   LENGTH OF FLAG ARRAY
  C IFLAG   SET TO 1 IF PRINT IS ACTIVE
  C NC      NUMBER OF PRINT REQUESTS
  C IPRNT   PRINT REQUEST NUMBER
  C IFG     FIRST GROUP FOR PRINT
  C IFP     FIRST PASS FOR PRINT
  C IFB     FIRST BOOSTER FOR PRINT
  C ILG     LAST GROUP FOR PRINT
  C ILP     LAST PASS FOR PRINT
  C ILR     LAST BOOSTER FOR PRINT
  C IDUMP   PRINT NUMBER TO ABORT RUN WITH MEMORY DUMP
  C
  C DATA (NFLAG = 100)
  C
  C ENTRY READPRNT
  C
  C ENTRY READPRNT
  C
  PRINT 1
1 FORMAT(/ 20X,15X PRINT REQUESTS//10X,7M NUMBER,6X,11M FIRST GROUP
15X,10M FIRST PASS,2X,13M FIRST BOOSTER,5X,10M LAST GROUP,6X,9M LAST P
PASS,3X,12M LAST BOOSTER)
  DO 3 N=1,NC
  PRINT 4, (IDUMPR(N,J), J = 1, 8)
3 CONTINUE
4 FORMAT(7(5X,110I,5X,4B)
  REFLEN
  END

```

SATS PRINTED

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IDENT REAPRINT

PROGRAM LENGTH- 00103
ENTRY POINTS 00063
REL. SPENT 00056
BLOCK NAMES
EXTERNAL SYMBOLS 00747

THEND.
OACDICY.
STM.
GASINGL.

2023

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PTAS.5

```

1 7HDBSEN0, RMROOSTFNI)
C SET DEFAULTS
C ADATA = 0
C ACRF = 0
C DO 10 I = 1, 100
10 MYTYPE(I) = TMOEFAULT
C MYNAME(1) = TWIGSTAP
C MYFORM(1) = 2M18
C MYVAL(1) = 1
C MYNAME(2) = SHIGEND
C MYFORM(2) = 2M18
C MYVAL(2) = 200
C MYNAME(3) = TMLCADOPT
C MYFORM(3) = 2M18
C MYVAL(3) = 4MFB.2
C MYNAME(4) = 7MAXFOCT
C MYFORM(4) = 2M18
C MYVAL(4) = 2
C MYNAME(5) = 8MFBACLOOK
C MYFORM(5) = 4MFB.2
C FVAL(5) = .9
C MYNAME(6) = 6MDELAGE
C MYFORM(6) = 4MFB.2
C FVAL(6) = 2.0
C MYNAME(7) = 2M18
C MYFORM(7) = 4MFB.2
C FVAL(7) = 1.0
C MYNAME(8) = 5M10URGE
C MYFORM(8) = 4MFB.2
C FVAL(8) = .5
C MYNAME(9) = 5M10DUMP
C MYFORM(9) = 2M18
C MYVAL(9) = 0
C ADEFLT = 0
C SET PRINT DEFAULTS
C DO 30 I = 1, 60
30 PRINT(I) = 0
C IFG(I) = 1
C IFP(I) = 1
C IFR(I) = 1
C ILG(I) = 200
C ILP(I) = 2

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      ILB(I) = 500
      30 MYRT(I) = 7*DEFAULT
C
      DO 40 I = 1,4
      40 IPRT(I) = 1
      IPRT(5) = 12
      IPRT(6) = 2
      IPRT(7) = 15
      IPRT(8) = 76
      NC = 7
C
C   READ PARAMETER CARDS
      PRINT 101
      101 FORMAT('USER INPUT PARAMETER CARDS FOR PROGRAM FOOTPRINT *')
      100 READ 102, INCARD
      102 FORMAT(10A8)
      PRINT 103, INCARD
      103 FORMAT(1X,10A8)
      CALL GETVALU (INCARD, NDATA, NAMEVAR, IVALUE, INDX1, INDX2,
      1 INDX3, MORE)
      IF (NDATA) 2000, 2000, 110
      110 DO 1000 I = 1, NDATA
      KKK = I
      ITEST = NAMEVAR(I)
      IAM = I*LE (ITEST, MYNAME, NDEFLE)
      IF (IAM) 120, 120, 150
      CHECK FOR PRINT OR NOPRINT
      120 IF (ITEST - 5*PRINT) 130, 200, 130
      130 IF (ITEST - 7*NOPRINT) 140, 300, 140
      140 PRINT 141, ITEST
      141 FORMAT ('//25X, * UNABLE TO DECIPHER VARIABLE NAME *. AB. *. INPUT
      1 REQUEST * (IGNORE *')
      GO TO 1000
C
      INPUT PARAMETER
      150 MYTYPE (IAM) = 64 INPUT
      GO TO (151, 151, 152, 151, 153, 153, 153, 153, 151), IAM
      151 MYVAL(IAM) = NUMGET(IVALUE(I, KKK), 1A)
      GO TO 1000
      152 MYVAL(IAM) = IVALUE(I, KKK)
      GO TO 1000
      153 DECODE (16, 1001, IVALUE(I, KKK)) FVAL(IAM)
      GO TO 1000
C
      PRINT REQUEST
C
      200 ITEST = NUMGET (IVALUE (I, KKK), 1A)
      210 IF (ITEST) 1000, 1000, 210
      NC = NC + 1
      IF (NC - LE, 60) 60 TO 215
      PRINT 1002
      1002 FORMAT ('//25X, MORE THAN 60 PRINT REQUESTS. REMAINDER IGNORED *')
      NC = NC - 1
      GO TO 1000
      215 IPRT(NC) = ITEST
      MYRT (NC) = 64 INPUT

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220 I = I + 1
IF (I-NDATA) 230, 230, 1000
230 IAM = IFILE (NAMEVAR(I), NAMEPNT, 6)
IF (IAM) 240, 240, 250
C 240 IF PRINT INFORMATION
240 I = I - 1
GO TO 1000
C 250 PRINT INFORMATION
250 IAMPL = IAM + 1
KKK = I
ICUMPR (NC, IAMPL) = NUMGET (IVALUE (I, KKK), 16)
GO TO 220
C 260 PRINT CANCELLATION
C 270
C 300 ITEST = NUMGET (IVALUE (I, KKK),
IAM = IFILE (ITEST, IPRINT, NC)
IF (IAM) 1000, 1000, 310
310 IF6 (IAM) = 9995
IFB (IAM) = 9993
IFP (IAM) = 9999
MYPRY (IAM) = 6HREMOVED
GO TO 1000
C 1000 CONTINUE
1001 FORMAT (F16.0)
IF (MCRE) 2000, 2000, 100
C 2000 PRINT 2001
2001 FORMAT (10USER INPUT PARAMETERS FOR PROGRAM FOOTPRINT *)
C 2001 PRINT REQUEST
C 2001 CALL PRNTREQ
C 2002
C 2003 LOAD INPUT PARAMETERS
C 2004
IGSTART = MYVAL(1)
IGEND = MYVAL(2)
LOADOPT = IFILE (MYVAL(3), MYVADD, 3)
MAXFOOT = MYVAL(4)
FRACLOCK = FVAL(5)
DELAGE = FVAL(6)
PW = FVAL(7)
PURGE = FVAL(8)
IDUMP = MYVAL(9)
C 2005 PRINT INPUT PARAMETERS
C 2006
DO 2100 I = 1, NDEFLT
IFORMAT(3) = MYFORM(I)
2100 PRINT IFORMAT, MYNAME(I), MYVAL(I), MYTYPE(I)
CALL TAILMPT
IF (LOADOPT) 2200, 2300, 2200
2200 CALL LOADREAD
2300 RETURN

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192000
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FT45.5

END

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194000

2027

IDENT RDCARDF

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00733
00140
21534
11560
00016
00747
02764

RDCARDF
RAIDATA
A
CONTROL
FLAG
LOADATA

EXTERNAL SYMBOLS

THEHO.
0000ICT.
GETVALU
ITLF
NIMGFT
PONTREQ
TARLIMPT
LOADREAD
TSM.
DEC.
STM.
SLO.
SLI.
ONSINGL.

5.475 5DCARFF

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00423	000004.	00427	00430	00433	00436	00439	00442	00445	00448	00451	00454	00457	00460	00463	00466	00469	00472	00475	00478	00481	00484	00487	00490	00493	00496	00499	00502	00505	00508	00511	00514	00517	00520	00523	00526	00529	00532	00535	00538	00541	00544	00547	00550	00553	00556	00559	00562	00565	00568	00571	00574	00577	00580	00583	00586	00589	00592	00595	00598	00601	00604	00607	00610	00613	00616	00619	00622	00625	00628	00631	00634	00637	00640	00643	00646	00649	00652	00655	00658	00661	00664	00667	00670	00673	00676	00679	00682	00685	00688	00691	00694	00697	00700	00703	00706	00709	00712	00715	00718	00721	00724	00727	00730	00733	00736	00739	00742	00745	00748	00751	00754	00757	00760	00763	00766	00769	00772	00775	00778	00781	00784	00787	00790	00793	00796	00799	00802	00805	00808	00811	00814	00817	00820	00823	00826	00829	00832	00835	00838	00841	00844	00847	00850	00853	00856	00859	00862	00865	00868	00871	00874	00877	00880	00883	00886	00889	00892	00895	00898	00901	00904	00907	00910	00913	00916	00919	00922	00925	00928	00931	00934	00937	00940	00943	00946	00949	00952	00955	00958	00961	00964	00967	00970	00973	00976	00979	00982	00985	00988	00991	00994	00997	01000	01003	01006	01009	01012	01015	01018	01021	01024	01027	01030	01033	01036	01039	01042	01045	01048	01051	01054	01057	01060	01063	01066	01069	01072	01075	01078	01081	01084	01087	01090	01093	01096	01099	01102	01105	01108	01111	01114	01117	01120	01123	01126	01129	01132	01135	01138	01141	01144	01147	01150	01153	01156	01159	01162	01165	01168	01171	01174	01177	01180	01183	01186	01189	01192	01195	01198	01201	01204	01207	01210	01213	01216	01219	01222	01225	01228	01231	01234	01237	01240	01243	01246	01249	01252	01255	01258	01261	01264	01267	01270	01273	01276	01279	01282	01285	01288	01291	01294	01297	01300	01303	01306	01309	01312	01315	01318	01321	01324	01327	01330	01333	01336	01339	01342	01345	01348	01351	01354	01357	01360	01363	01366	01369	01372	01375	01378	01381	01384	01387	01390	01393	01396	01399	01402	01405	01408	01411	01414	01417	01420	01423	01426	01429	01432	01435	01438	01441	01444	01447	01450	01453	01456	01459	01462	01465	01468	01471	01474	01477	01480	01483	01486	01489	01492	01495	01498	01501	01504	01507	01510	01513	01516	01519	01522	01525	01528	01531	01534	01537	01540	01543	01546	01549	01552	01555	01558	01561	01564	01567	01570	01573	01576	01579	01582	01585	01588	01591	01594	01597	01600	01603	01606	01609	01612	01615	01618	01621	01624	01627	01630	01633	01636	01639	01642	0164
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[illegible]

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```

NABEN=NABEN-1
VALASGN=VALASGN-1
IF (NABEN) = 1010, 110, 120
110 NTS=NABEN
IF (NTS) = 1
GO TO 999
120 YTOP=IROST(NR)
NAB = NAB(NR) + NAB(NR) - 1
IF (LTOP-YTOP) = 150, 130, 150
130 YTOP=JERONT
IROST(NR)=ITOP
IF (JERONT-JTOP) = 140, 160, 150
140 ITRAK=ITOP-JERONT
GO TO 999
150 IF (JERONT-JTOP) = 140, 160, 150
160 ITRAK=JERONT-JTOP
170 IF (ITOP-JTOP) = 140, 160, 150
180 ITRAK=JTOP-JTOP
190 ITRAK=JTOP-JTOP
200 ITRAK=JTOP-JTOP
210 ITRAK=JTOP-JTOP
220 ITRAK=JTOP-JTOP
230 ITRAK=JTOP-JTOP
240 ITRAK=JTOP-JTOP
250 ITRAK=JTOP-JTOP
260 ITRAK=JTOP-JTOP
270 ITRAK=JTOP-JTOP
280 ITRAK=JTOP-JTOP
290 ITRAK=JTOP-JTOP
300 ITRAK=JTOP-JTOP
310 ITRAK=JTOP-JTOP
320 ITRAK=JTOP-JTOP
330 ITRAK=JTOP-JTOP
340 ITRAK=JTOP-JTOP
350 ITRAK=JTOP-JTOP
360 ITRAK=JTOP-JTOP
370 ITRAK=JTOP-JTOP
380 ITRAK=JTOP-JTOP
390 ITRAK=JTOP-JTOP
400 ITRAK=JTOP-JTOP
410 ITRAK=JTOP-JTOP
420 ITRAK=JTOP-JTOP
430 ITRAK=JTOP-JTOP
440 ITRAK=JTOP-JTOP
450 ITRAK=JTOP-JTOP
460 ITRAK=JTOP-JTOP
470 ITRAK=JTOP-JTOP
480 ITRAK=JTOP-JTOP
490 ITRAK=JTOP-JTOP
500 ITRAK=JTOP-JTOP
510 ITRAK=JTOP-JTOP
520 ITRAK=JTOP-JTOP
530 ITRAK=JTOP-JTOP
540 ITRAK=JTOP-JTOP
550 ITRAK=JTOP-JTOP
560 ITRAK=JTOP-JTOP
570 ITRAK=JTOP-JTOP
580 ITRAK=JTOP-JTOP
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600 ITRAK=JTOP-JTOP
610 ITRAK=JTOP-JTOP
620 ITRAK=JTOP-JTOP
630 ITRAK=JTOP-JTOP
640 ITRAK=JTOP-JTOP
650 ITRAK=JTOP-JTOP
660 ITRAK=JTOP-JTOP
670 ITRAK=JTOP-JTOP
680 ITRAK=JTOP-JTOP
690 ITRAK=JTOP-JTOP
700 ITRAK=JTOP-JTOP
710 ITRAK=JTOP-JTOP

```

S-ATS REMOVE

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

REMOVE

RAIDATA

4

PERFORM

WPNTGT

2

DEBUG

PRINT

EXTERNAL SYMBOLS

THENT.

ORDDICT.

GOPRINT

XMAKEF

STH.

IDENT

00222

00025

21534

13560

90005

00004

07641

00025

00002

REMOVE

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5.ATS

REMOVE

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P00217 MAXDEX
C00000 MSGM
P00220 NR
C04705 M0EX
C04051 M0EXP
C04215 M0EXT
C04705 M0EXVAL
C00003 NOLD
P00221 NR
C00000 NT
C04705 LTB
C21454 NTMAX
C00003 NUMROOST
X00002 ORDOICT.
C02737 R
P00025 REMOVE
C10427 TVAL
X00005 STM.
C02734 TASK
C02737 TGTAT
C04673 TGTLOWG
X00001 TMCND.
C04673 TMCETA
P00152 T500001.
C00002 TVAL
C00001 VALASEN
C00004 VALOLD
P00142 W500001.
X00004 XMSXOF
00122 SYMBOLS

00136 00147 00150 00152
00061 00062 00063 00076 00110
00051 00066

00103 00137
00067 00067 00073 00074 00101 00101 00102

00000 00026

00025 00064 00064 00154

00161
00140
00063 00065 00065
00151 00145

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```

SURROUTINE SETDATA(1)
CSUBR SETDATA LJUN71 .....
C LOADS CORRECT FOOTPRINT PARAMETER TABLE DATA SET INTO APPROPRIATE
C AREA IN STORAGE
C TAPES LJUN71 .....
CUSE COMMON/FILES, TGFILE(2), BASFILE(2), WSLTIME(2), ALOCAT(2),
1 TMPALOC(2), ALOCGRP(2), STORFIL(2), EVNTAPE, PLANTAPE
C TYPE INTEGER TGFILE, BASFILE, WSLTIME, ALOCAT, TMPALOC,
1 ALOCGRP, STORFIL, EVNTAPE, PLANTAPE
C COMMON/ISCRATC-/ ISCR, ITABL
C TAPES .....
CEND TAPES .....
CUSE PARAMETR LJUN71 .....
COMMON /PARAMETR/ MAXSYS, IMNAME(40), MINLOAD(40), MAXLOAD(40),
1 NSPACE(40), THRUWMAX(40), MYTYPE(40), INDATA(40)
PARAMETR .....
CUSE FOOTDATA LJUN71 .....
COMMON /FOOTDATA/ GAS(2), PX(2), MAX(2), TOSSCI(2,2), TOSSC2(2,
1,2), STFCMF(2,2), TTTW(2,2), TDFWOM(2), GRASIC(2,2), RADD(2,2), EONE(2,
2,2), DENOM, COMF(2,2), CTWO(2,2), LLNGDAT
C COMMON /SHORTDAT/ ALPHA7(14), ALPHA1(16), ALPHA2(16), METAZ(18), METAI
1(16), METAP(16), MAXRROST(14), GTFC, GOMF, GZERO, DONE, NZERO, L$MTDAT
C TYPE REAL MAXRROST
C COMMON /PENADON/ TOTFEUL, SRFCL(2), SRFCE2(2), SRFEXP1(2)
1 , SRFEXP2(2), SRFEN, LPENDAT
C DATA (LLNGDAT = 57)
1 , (LSHIDAT = 117)
2 , (LPENDAT = 67)
C FOOTDATA .....
CUSE TAPENMR LJUN71 .....
COMMON /ITP/ ITP
COMMON /TWORD/ TWORD
EQUIVALENCE (TWORD, TWORD)
COMMON /MYIDENT/ MYIDENT
COMMON /NCPRINT/ NCPRINT
COMMON /ITPRINT/ ITPRINT(10)
COMMON /FILABEL/ INIDENT, INRUNNO, INDATE, INFORM, INSECR,
1 INTIME, INLGTH, INCOMW(5)
COMMON /MYLABEL/ MYFORM, MYSECR, MYLGTH, MYCOMW(5)
C

```

```

CEND      TAPFMANR *****
C          DATA (ILASTS = 0), (ILASTL = 0), (ILASTP = 0)
C
C          ITP = ITAHL
C          MYIDENT = 7HSCRATCH
C          CALL SFTHREAD
C          IWTX = MYTYP(1)
C          INEW = IDATA(1)
C          100 GO TO (1000, 2000, 3000, 11000), IWTX
C
C          LONG RANGE SYSTEM
C
C          1000 IF (INEW - ILASTL) 1100, 10000, 1100
C          1100 ILASTL = INEW
C          GO TO 90000
C          1200 CALL PDARRAY(GAS, LLNGDAT)
C          GO TO 10000
C
C          SHORT RANGE SYSTEM
C
C          2000 IF (INEW - ILASTS) 2100, 10000, 2100
C          2100 ILASTS = INEW
C          GO TO 90000
C          2200 CALL PDARRAY (ALPHAZ, LSHTDAT)
C          GO TO 10000
C
C          LONG RANGE SYSTEM WITH PENALIDS
C
C          3000 IF (INEW - ILASTP) 3100, 10000, 3100
C          3100 ILASTP = INEW
C          GO TO 90000
C          3200 CALL PDARRAY(GAS, LLNGDAT)
C          NGW = LPENDAT - LLNGDAT
C          CALL PDARRAY (TOTFUEL, NOW)
C          GO TO 10000
C
C          10000 CALL TERMTAPE
C          RETURN
C
C          ERROR
C
C          11000 PRINT 11001, IWTX, INEW
C          11001 FORMAT(/1X,15(1H*),57H FOOTPRINT DATA ERROR, NO FORMULA DEFINITION
C          1N FOR MYTYP = .110.0M IDATA = .110)
C          CALL ABORT
C
C          FIND DATA SET
C
C          90000 CALL PDWORD
C          MYTEST = ITWORD
C          IF (MYTEST) 11000, 11000, 90005
C          90005 IF (MYTEST - IWTX) 90010, 90030, 90010
C          90010 CALL PDWORD
C          90020 CALL PDWORD
C          LNG = ITWORD

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FTMS.5

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CALL SKIP(LNG)
GO TO 90000
90030 CALL RDWORD
MTEST = ITWORD
IF(MTEST - INEW) 90020, 90040, 90020
90040 CALL RDWORD
LNG = ITWORD
GO TO (1200, 2200, 3200, 11000), IMTX
END

65000
70000
71000
72000
73000
74000
75000
76000
77000

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	SETDATA	INENT	SETDATA
		0024	
		0035	
	FILES	0020	
	TSCRATCH	0002	
	PARAMETR	0031	
	PGOTDATA	0072	
	SHRTDAT	0066	
	PERADO	0013	
	ITP	0001	
	TWORN	0001	
	MYIDENT	0001	
	NOBRIAT	0001	
	IFTPRAT	0012	
	FLABEL	0014	
	MYLAREL	0010	
EXTERNAL SYMBOLS			
	THEAD.		
	ORODICT.		
	SETREAD		
	RDARRAY		
	TERMTAPE		
	ABORT		
	RDWORN		
	SKIP		
	STH.		
	QMSINGL.		

5-4TS SETDATA

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X00006	AROST	00135							
C00012	ALCGRP								
C00006	ALDCTAC								
C00020	ALP-41								
C00040	ALP-42								
C00000	ALPHAZ								
C00002	WASFLE								
P00221	HEGIN.	00215	00223	00227					
C00100	RETA1								
C00120	HFAZ								
C00060	HFAZ								
P00200	CHVPT1.	00131	00132						
C00061	COME								
P00006	CRFT.	00135							
C00065	CTWC								
C00060	DENOM								
P00001	DICT.								
C00163	DCWF	00037	00044	00067	00100	00111	00117	00122	00136
C00171	DSPLAC	00150	00152	00156	00162	00173	00204	00205	00240
C00164	DZERO								
P00216	ENDING.	00046	00123	00201	00242	00262	00203	00203	
C00054	ECME								
C00056	ETWC								
C00016	EVENTAPE								
P00000	EXIT.	00221							
P00006	FORMAT.	00043							
P00047	FP00001.	00214							
C00000	GAS	00213	00112						
P00232	GEPL.	00070							
P00222	GETPU.	00206							
P00135	GG00000.	00211	00224						
C00141	GONE	00124							
C00160	GTWC								
C00162	GZPFG								
P00006	I	00047							
C00361	IDATA	00052	00052						
C00000	IFIPRNT								
P00233	IGOTO.	00055	00173						
C00001	IMNAME								
P00004	ILASTL	00062							
P00005	ILASTP	00104							
P00003	ILASTS	00073							
P00234	IMTX	00051	00054	00130	00145	00173			
C00007	INCOMM								
C00002	INDATE								
P00235	INEX	00053	00061	00064	00072	00075	00103	00106	00165
C00003	INFORM								
C00000	INIDENT								
P00201	INITIAL.								
C00004	INLGTH								
C00001	INRUMNO								
C00004	INSECP								
C00005	INTIME								

5.415

SETDATA

X60010 SKIP	00155
C00001 SRFC1	
C00003 SRFC2	
C00011 SRFCN	
C00005 SRFCXP1	
C00007 SRFCXP2	
X00011 STH.	00124
C00014 STRKFIL	
C00042 TDENOM	
C00032 TEOME	
X00005 TERM-TAPE	00121
C00036 TETWO	
C00080 YGFILE	
X00001 YEND.	00133
C00241 YPROC-MAX	
C00010 YMPALOC	
C00012 YOSSC1	
C00022 YOSSC2	
C00080 TOTFUEL	00120
C00009 TWORD	
00177 SYMBOLS	

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```

SURROUTINE TARLINPT
TARLINPT 1JUN71
C
C
C READ DATA INTO FOOTPRINT PARAMETER TABLES
C
C MYTYPE = 1 - LONG RANGE SYSTEM
C MYTYPE = 2 - SHORT RANGE SYSTEM
C MYTYPE = 3 - LONG RANGE SYSTEM WITH PENETRATION AIDS
C
C
C
C
C TAPES 1JUN71
C
C COMMON/FILES/ TGTFIL(2), BASFILE(2), WSLTIME(2), ALDOCTAR(2),
1 TMAPLOC(2), ALDOGRP(2), STRKFIL(2), EVENTAPE, PLANTAPE
C
C TYPE INTEGER TGTFIL, BASFILE, WSLTIME, ALDOCTAR, TMAPLOC,
1 ALDOGRP, STRKFIL, EVENTAPE, PLANTAPE
C
C COMMON/ISCRATCH/ ISCR, ITABL
C
C TAPES
C
C RAINDATA 1JUN71
C
C COMMON/RAIDATA/ NT, JGROUP, JCOMP, INDEX(1588), TGTLAT(1588),
1 TGTLONG(1588), RVAL(1588), DLAT(1588), DLONG(1588),
2 _RAID, MTMAX, LFTY(1588)
C
C DIMENSION R(1588), IMETA(1588), IFOR(1588), IMACK(1588), IDUM(16)
C
C EQUIVALENCE (R, TGTLAT), (IMETA, TGTLONG), (IFOR, DLAT), (IMACK,
1 DLONG), (IDUM, INDEX)
C
C TYPE LOGICAL LLFIX
C
C COMMON/4/ DESIG(1588), TASK(1588), CNTRYLOC(1588), FLAG(1588)
C
C RAINDATA 1JUN71
C
C PARAMETER 1JUN71
C
C COMMON /PARAMETER/ MAXSYS, IFNAME(48), WZLOAD(48), MAXLOAD(48),
1 DSPACE(48), THROMAX(48), MTYPE(48), IDATA(48)
C
C PARAMETER
C
C FOOTDATA 1JUN71
C
C COMMON /FOOTDATA/ GAS(2), RX(2), RAX(2,2), TOSSC1(2,2,2), TOSSC2(2,
1 2,2), TEOMF(2,2), TETWG(2,2), TOENGM(2), RBASIC(2,2), RADDO(2,2), EONE(2,
2,2), TWO(2,2), DENOM, CONE(2,2), CTWO(2,2), LLNBROT
C
C COMMON /SHRTDAT/ ALPHAZ(16), ALPHA1(16), ALPHA2(16), RETAZ(16), RETA1
1 (16), RETA2(16), MAXRROT(16), BTWO, GONE, GZERO, DOME, DZERO, LSWTDAY
C
C TYPE REAL MAXRROT
C
C COMMON /PENADO/ TOTFUEL, SRFC1(2), SRFC2(2), SRFEXP1(2)
1 SRFEXP2(2), SRFDEM, LPEMMAT
C
C

```



```

C      DATA (LUNGAT = 57)
1      * (LSHTDAY = 117)
2      * (LPENDAT = 67)

C      FOOTDATA .....
C      TAPFHAND LUNTI .....
C      COMMON /ITP/ ITP .....
C      COMMON /TMORD/ TMORD .....
C      EQUIVALENCE (ITMORD, TMORD)
C      COMMON /MYIDEN/ MYIDEN .....
C      COMMON /NOPRINT/ NOPRINT .....
C      COMMON /IFTPRINT/ IFTPRINT(10)
C      COMMON /FILABEL/ INIDENT, INRUNNO, INDATE, INFORM, INSECR,
1      INTIME, INLENGTH, INCOMM(5)
C      COMMON /MYLAHEL/ MYFORM, MYSECR, MYLENGTH, MYCOMM(5)

C      TAPFHAND .....
C      DIMENSION IGOT(40)
C      SET UP SCRATCH FILE TO STORE DATA
C      ITP = ITARL
C      MYIDEN = TMSCRATCH
C      CALL SETWRITE
C      NGOT=0
C      READ SYSTEM CONTROL CARD
1      READ LOG, LOGM
100  FORMAT(A8,A2)
      I=NUMGET(IDUM(1),10)
      IF (I) 9999, 9999, 2
2      NGOT=NGOT+1
      IGOT(NGOT)=I
      ITHNAME(I)=IDUM(3)
      MINLOC(I)=NUMGET(IDUM(5),10)
      MAXLOC(I)=NUMGET(IDUM(7),10)
      DECDEC(32-3, IDUM(9)) DSPACE(I), THROU MAX(I)
3      FORMAT(2I10.0,EX)
      IMT = MYTYPE(I) = NUMGET(IDUM(13), 10)
      IMRVSYS = IDATA(I) = NUMGET(IDUM(15), 10)

C      SEE IF THIS TYPE ALREADY READ
C      K = NGOT - 1
      DO 5 J = 1, K
      L = IGOT(J)
      IF (IMT - MYTYPE(L)) 5, 4, 5
4      IF (IMRVSYS - IDATA(L)) 5, 1, 5
5      CONTINUE

C      NOT YET READ
      ITMORD = IMT
      CALL WMORDG
      ITMORD = IMRVSYS
      CALL WMORD
      GO TO (1000, 2000, 3000), IMT
C      LONG RANGE SYSTEM
1000 READ LOG, LOGM

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```

181 FORMAT(PI10.0)
  READ 101,RBASIC,RADO,RX,RAK,TOSSC1,TOSSC2,TEOME,YTEWO,TDENOM
  READ 101,EOME,ETWO,TEOM
  READ 101,COME,CTWO
  ITWRO = LL*QOAT
  CALL WRORD
  CALL WRAPRAY(GAS, LLNGOAT)
  GO TO 1
C
  SPURT RANGE SYSTEM
2000 READ 101,ALPHAZ,ALPHA1,ALPHA2,BETAZ,BETA1,BETA2,MAXRBOST,ETWO,
  IGOME,IGZERO,OCOME,IOZERO
  ITWRO = LSHTOAT
  CALL WRORD
  CALL WRARRAY(ALPHAZ, LSHTOAT)
  GO TO 1
C
  LONG RANGE SYSTEM WITH PENETRATION AIDS
C
3000 READ 101, TOTFUEL, SRFDEN
  READ 101, SRFC1, SRFC2, SRFXP1, SRFXP2
  READ 101, RBASIC, RADO, RX, RAK, TOSSC1, TOSSC2, TEOME, YTEWO
  I = YDEOM
  READ 101, EOME, ETWO, DENOM
  READ 101, COME, CTWO
  ITWRO = LPENDAT
  CALL WRORD
  NOW = LPENDAT - LLNGOAT
  CALL WRARRAY(GAS, LLMSOAT)
  CALL WRARRAY(TOTFUEL, NOW)
  GO TO 1
C
9999 ITWRO = 0
  CALL WRORD
  CALL TERTAPE
  RETURN
C
  PRINT 10
  GO TO (101,10X,274 FOOTPRINT PARAMETER TABLES)
  DO 2000 I=1,NGOY
    NCMAFF = 0
    J=ICOT(I)
    PRINT 20,J,INNAME(I),MINLOAD(I),MAXLOAD(I),DSFACE(J),TROW=AR(J)
  20 FORMAT(//12M SYSTEM NO. //2,10X,AB,10X,11, MINLOAD = //12,11M MAX
  LOAD = //12,41M MINIMUM SPACING EXPLICITLY CONSIDERED = //10.5//41,
  224M MAXIMUM TROW DISTANCE = //7.2)
  CALL SETDATA(IJ)
  IMT = NTYPE(IJ)
  GO TO (1500, 2500, 3500), IMT
C
  LONG RANGE SYSTEM
C
1500 I(JM(1)) = 0IMPOSITIVE
  I(JM(2)) = 0IMNEGATIVE
  I(JM(3)) = 0M
  I(JM(4)) = 0M N3/LR =

```

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```

IDUM(5) = RM DO/CR =
DO 1700 N=1,2
  N=NO:
  PRINT 30, NPV, NCMFAC
  30 FORMAT(//110TARLES FOR,12,3M-0-.12,1AM CONFIGURATION/,2240*MAXIMUM
  1 ROOSTER RANGE)
  PRINT 31,(IDUM(K),BRASIC(N,K),RADO(N,K),K=1,2)
  31 FORMAT(25X,AR,15M LAUNCH AZIMUTH,5X,5M R = ,F8.1,3M * ,F8.1.
  114M * SINE(AZIMUTH))
  PRINT 32,CAS(N)
  32 FORMAT(//34M FUEL LOAD AT ROOSTER SEPARATION IS ,F6.1,15M 90CMOS.//
  1)
  IF (INT - 3) 1520, 1510, 1520
1510 PRINT 42
  42 FORMAT(10X,50MINUS SPACING AND RELEASE FUEL COMPUTED AS FOLLOWS)
  PRINT 34, (IDUM(K), IDUM(6), SRFCL(N), SRFCL(N), SRFCL(N), IDUM(3)
  1, SRFEXP(N), SRFEM, SRFEXP(N)
1520 PRINT 43
  43 FORMAT(//24M RANGE EXTENSION EQUATIONS)
  PRINT 35, (IDUM(K), IDUM(4), R1(N,K), R1(N,K), R1(N,K), K = 1, 2)
  PRINT 33
  33 FORMAT(//10M RV TOSS EQUATIONS)
  DO 1400 L=1,M
  PRINT 34,L
  34 FORMAT(//25X, 9M - TO TOSS,12,12M WARMUP(S),)
  PRINT 35,(IDUM(K),IDUM(4),TOSSCL(N,K,L),TOSSCL(N,K,L),K=1,2)
  1, IDUM(3),TECOMF (N,L),TFCOM(N,L),TFCOM(N,L)
  35 FORMAT(//25X,AR,15M LAUNCH AZIMUTH,5X,AR,15M F6.2,3M * ,F6.2,16M *
  1 SINE(AZIMUTH)) // AR,15M BOTH OF THESE EQUATIONS ARE MULTIPLIED BY
  2V THE FACTOR G, WHERE//10X,9M G = EXP(F5,2, 30M * (1+RANGE - RA
  1NGE TO FIRST TARGET)/(F6,1,5M) 00 ,F5,2,1M))
1600 CONTINUE
  PRINT 34
  34 FORMAT(//33M RATIO OF DOWNRANGE TO CROSSRANGE)
  PRINT 35,(IDUM(K),IDUM(5),COMF(N,K),CTWO(N,K),K=1,2),IDUM(3),
  1COMF(N),OFNOM,FTW(N)
1700 CONTINUE
  PRINT 37
  37 FORMAT(1X,110(1M)//)
  GO TO 2000
C
  SHORT RANGE SYSTEM
  2500 MIN = 1
  MAX=MAXLOAD(J)
  PRINT 38, (K, MAXROST(K), K = MIN, MAX)
  38 FORMAT(//22M MAXIMUM ROOSTER RANGE,1X,40X,5X,5M RANGE/(32X,12,
  16X,F7.1))
  PRINT 39, (K, RETAZ(K), RETAL(K), RETAZ(K), K = MIN, MAX)
  39 FORMAT(//43M FUEL LOAD AT ROOSTER SEPARATION PARAMETERS,10X,7M,ETA
  1TWO,10X,7M,ETAONE,10X,9M,ETAZERO/(47X,12,1X,F12.5,215X,F12.5))
  PRINT 40,(K,ALPMAT(K),ALPMAL(K),ALPMAT(K),K=MIN,MAX)
  40 FORMAT(//29M FUEL CONSUMPTION PARAMETERS,10X,9M,ALPMATW,10X,
  1M,ALPMACNF,10X,9M,ALPMATZRO/(33X,12,3X,F10.3,3X,F10.3))
  PRINT 41,CTWO,CONF,GZERO,DONE,NZERO
  41 FORMAT(//26M DOWNRANGE / CROSSRANGE = ,E10.3,13M * X 00 2 *
  1F10.3,4M * X * ,E10.3/3X,23M DOWNRANGE / UBRANGE = ,E10.3,10.3,
  24M * X * ,E10.3)

```

FYMS.5

U

PRINT 37

60 10 2000

U

LONG RANGE SYSTEM WITH PENETRATION AIDS

C

3500 INM(4) = 8400000 = 50000000

6AS(1) = 6AS(2) = TOTFUEL

NCMAFF - 15

0051 01 09

46

20003 CONTINUED

U

REYER

END

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5

166070
167030
168050
169000
170000
171000
172050
173000
174000
175000
176000
177000
178000
179000
180030

5.4TS TABLINPT

IDENT TABLINPT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

PONTABLE	02141
TABLINPT	01321
	00555
FILES	00020
TSCRATCH	00002
RAIDATA	21534
4	13560
PARAMETR	00431
FOOTDATA	00072
SMRTDAT	00164
PENADO	00013
ITP	00001
TWORD	00001
MYIDENT	00001
NOPRINT	00001
IFTDPT	00012
FILABEL	00014
MYLABEL	00010

EXTERNAL SYMBOLS

THEND.
ORONCT.
SETWRITE
MURGET
WRWORD
WRGRAY
TERMTAPE
SETDATA
TSH.
DEC.
SYN.
SLI.
OWSINGL.

5.ATS TABLET

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C00012 ALGCRP
C00004 ALGCTP
C00020 ALPHA1
C00040 ALPHA2
C00000 ALPH47
C00002 BASFILE
P02116 BEGIN.
C00100 RETA1
C00100 RETA2
C00004 RETA3
C00004 CNTRYLOC
P02001 CNVRT1.

C00001 CONE
P00003 CRFMT.
C00005 CMC
X00012 DEC.
C00000 DENOM
C00000 DESIG
P00001 DICT.

C13563 CLAT
C14517 CLONG
C00163 CONE
C00171 DSPACF
C00164 NZERO
P02120 FACING.
C00054 EOMF
C00056 ETMO
C00016 EVNTAPE
P00007 EXIT.
C17624 FLAG
P00003 FORMAT.
C00003 GAS
P00003 GC00000.
P00000 G600001.
P00723 G600002.
P00775 G600003.

01354 01772 01770 01771 01773

02117 01746 01744 01745 01747

00433 00634 01011 01103 01105 01106 01107 01110 01130 01132 01232

01344 01346 01347 01350 01351 01352 01411 01412 01424 01431 01432

01446 01473 31474 01477 01500 01505 01510 01511 01512 01534 01535

01540 01541 01566 01602 01603 01606 01607 01614 01617 01622 01623

01651 01652 01655 01656 01663 01666 01667 01670 01671 01673 01674

01745 01746 01747 01767 01771 01772 01773 02007 02010 02011 02012

02013 01265 01654 01654 01654 01654 01654 01654 01654 01654 01654

00603 00640 00723 01333 01355 01415 01440 01451 01462 01523 01555

01571 01626 01640 01704 01732 01754 02002 02010

00630 01271 01656

01012 01012 01253 01253 01667

00557 00566 00573 00577 00602 00604 00620 00624 00631 00637 00641

00644 00700 00704 00713 00717 00722 00725 00731 00735 00741 00745

00751 00755 00761 00765 00771 00774 00777 01003 01007 01014 01017

01023 01027 01032 01034 01040 01045 01051 01055 01061 01065 01071

01075 01101 01113 01117 01121 01126 01135 01140 01144 01150 01154

01160 01163 01166 01172 01176 01202 01200 01212 01216 01222 01226

01232 01235 01240 01244 01250 01255 01260 01264 01270 01273 01277

01304 01307 01315 01317 01323 01327 01332 01342 01354 01354 01357

01414 01417 01437 01442 01450 01455 01461 01464 01514 01517 01522

01525 01544 01551 01554 01563 01570 01573 01625 01634 01637 01642

01672 01700 01703 01713 01731 01734 01755 01760 02001 02004 02015

02020 02023

01110 02012

00634 01351

01111 02013

00560 01320

01004 01245

01010 01251

02121

00563 01366

00720 01041

00571

00640 006001.

00711

00723

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8

P01315 6600004. 00775
 P01033 6600005. 01015
 P01114 6600006. 01043
 P01136 6600007. 01124
 P01164 6600010. 01136
 P01236 6600011. 01164
 P01256 6600012. 01236
 P01274 6600013. 01256
 P01333 6600014. 01325
 P01355 6600015. 01340
 P01415 6600016. 01405
 P01440 6600017. 01415
 P01451 6600020. 01440
 P01462 6600021. 01454
 P01515 6600022. 01462
 P01523 6600023. 01515
 P01547 6600024. 01523
 P01555 6600025. 01547
 P01571 6600026. 01561
 P01626 6600027. 01571
 P01649 6600030. 01632
 P01673 6600031. 01640
 P01704 6600032. 01676
 P01732 6600033. 01711
 P01756 6600034. 01732
 P02002 6600035. 01756
 P02016 6600036. 02002
 P02024 6600037. 02016
 C00161 GONE 01104
 C00160 GFW 01104
 C00162 GFERO 01107
 P02123 1 07004
 C10517 TRACK 00650
 C00761 IDATA 00600
 C00003 IDUM 01371
 C1472 01474 01504
 01613 01450 01450
 02010 02006 02006
 01104 01334 01336
 02011 00612 00615
 00650 00607 00642
 00600 00613 00612
 01371 01371 01375
 01472 01474 01504
 01613 01450 01452
 00613 00640 01337
 00706 01363 01346
 00615 00614 01345
 00651 00646 00701
 00644 00642 00675
 01427 01534 01653
 01804 02046 02060
 01615 02045 02057
 00560 01324

00647 01367 01367
 01425 01472 01472
 01601 01603 01613
 00642 00642 00642
 01377 01377 01377
 01601 01601 01601
 02026 02026 02026
 00625 00625 00625
 01375 01375 01375
 01533 01533 01533
 01462 01462 01462
 01342 01342 01342
 00705 00705 00705
 02045 02045 02045
 02063 02063 02063
 02100 02100 02100
 02112 02112 02112
 02075 02075 02075
 02101 02101 02101
 02114 02114 02114

5.415 TAB1_INPT

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CO0006 INMGTH
CO0001 INHUMNO
CO0004 INSECR
CO0005 INTIME
CO0020 ISCH
CO0001 ITAPL
CO0000 ITP
CO0000 ITWORN
P00571 .1
P00711 .1200
P01366 .1500
P01854 .1510
P01515 .1520
P01626 .1600
P01673 .1700
P00610 .2
P01043 .2000
P02034 .20000
P01765 .2500
P01124 .3000
P02025 .3500
P00666 .4
P00672 .5
P01312 .0000
P00073 .10
P00053 .100000
P00054 .100
P00147 .100001
P00150 .100002
P00151 .100003
P00152 .100004
P00153 .100005
P00554 .100006
P00070 .101
P00105 .20
P00062 .3
P00154 .30
P00174 .31
P00217 .32
P00256 .33
P00265 .34
P00277 .35
P00134 .36
P00371 .37
P00462 .38
P00426 .39
P00454 .40
P00521 .41
P00734 .42
P00247 .43
P00217 J
CO0002 JC000
CO0001 JC000

00561 00561
00562 00562
00674 00674
01313 01313
00679 01042 01123 01311
00707 02033
01052
01453 01453
00707 02024
01704
01364
00710
01365
00044
00664 00671
00687 00687
01330
00563
00574
01366
01370
01372
01374
01376
02025
00714
01343
00632
01010
01420
01063
01552
01564
01445
01526 01574 01643
02021
01701
01714
01135
01761
02035
01457
01520
00655
00657 00672 01337 01344 01345 01357 01360 01706
00726 01000 01020 01046 01127 01141 01167 01201 01261

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TAPLIMPT	K	00553	00473	01422	01424	01433	01447	01471	01531	01530	01532	01542	01737
P02130	K	01574	01600	01610	01645	01647	01647	01715	01720	01722	01724	01737	
P02131	L	00742	01744	01750	01763	01766	01770	01774	02071				
C21455	LFLIX	00660	00662	00667	01554	01565	01620	01626	02107				
C00071	LLM-DAY	00553	01033	01033	01041	01301	01301	01305					
C00312	LHM-DAY	C00146	01274	01274	01300	01300							
C21453	LRAID												
C00104	LSA-DAY	C00072	01114	01114	01112								
P02132	MAX	01710	01726	01752	01776								
C00121	MAXLOAD	00624	01350	01707	01747								
C00149	MAXPOST	01102	01722	01723									
C00000	MAXSYS												
P02133	MIN	01704	01715	01736	01762								
C00051	MINLOAD	00622	01347										
C00004	MSLTIME	00643	00643	00663	00662	01361	01361						
C00311	MTYPE												
C00083	MTCOM												
C00076	MTFDGM												
C00003	MVIDENT	00564	00564										
C00002	MYLNGTH												
C00001	MYSECO												
P02134	N	01401	01403	01444	01475	01500	01630	01664	01673	02053			
P02135	NCHAFF	01334	01412	02032									
P02136	NGOT	00370	00610	00611	00612	00652	02035						
C00000	NODPRINT												
P02137	NOW	01302	01310										
P02145	NOW	01404	01411										
C00000	NT												
C21454	NYMAX												
X00004	NYMGET	00403	00617	00623	00640	00645							
P02045	P00002.U	02050											
P02042	P00003.U	02064											
P02100	P00004.U	02104											
C00017	PLAYTAPF												
P01321	PRINTABLE	01321											
X00002	Q000ICT	00000		01322									
X00015	QMSIMGL	00556											
C02737	R	02040											
C00050	RAMP	00730	01177	01432									
C00004	RAX	00746	01207	01541									
C00044	RRAASIC	00732	01173	01430	01430								
C10627	RVAL												
C00002	RX	00742	01203	01537	01537								
X00010	SETDATA												
X00003	SETWRITE	01355											
X00014	SLL	00565											
		00574											
		01002											
		01143											
		01225											
		01231											
		01145											
C00001	SRCF1	01476	01476										
C00003	SRCF2	01151	01500										
C00011	SRCF0EN	01133	01511										
C00005	SRCF0E01	01155	01507	01507									

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C00007 SRFEXP2	01161	01512	01406	01416	01441	01455	1403	01516	01524	01530	01542
X00013 STM.	01326	01341	01641	01677	01712	01733	1757	02003	02017		
C00014 STAMFIL	00555										
C02734 TASK	00772	01233	01621	01621							
C00042 TCRKRM	00702	01223	01616	01616							
C00032 TCRMF	01314										
X00007 TCR-TAPE	00764	01227	01623								
C00034 TCRW											
C00003 TCRFILE											
C02737 TCR-LAY											
C05673 TCRLOW6											
X00001 TCRNO.	00601	00636	00721	00773	01013	01031	01112	01134	01182	01234	01254
	01272	01331	01353	01413	01436	01447	01460	01513	01521	01545	01553
	01567	01624	01636	01671	01702	01730	01754	02000	02014	02022	
C05673 TCRMAX	00635	01352									
C00018 TCRALOC	00752	01213	01605	01505							
C00022 TCRSCJ	00756	01217	01607								
C00000 TCRFUEL	01131	01131	01310	02027	02027						
P00673 TCR0001.	00654										
P02035 TCR0002.	01334										
P01630 TCR0007.	01560										
P01726 TCR0012.	01717										
P01752 TCR0013.	01741										
P01776 TCR0014.	01765										
X00011 TCRN.	00572	00712	00724	00774	01016	01044	01125	01137	01165	01237	01257
C00000 TCRN	01402	01574	02046	02053	02054	02055	02061	02061	01611	01646	01660
P02052 TCR0002.	00254	01423	01434	01476	01502	01531	01543	01577	01611	01646	01660
P02070 TCR0003.	01716	01725	01740	01751	01764	01774	02064	02071	02072	02073	02076
	02077										
P02106 TCR0004.	00661	01557	01627	02162	02107	02110	02111	02114	02115		
X00006 TCRN	01037	01128	01303	01306							
X00005 TCRN	00677	00703	01035	01116	01276	01314					
P00657 TCR0001.	00674	00674									
P01335 TCR0002.	02036	02036									
P01403 TCR0003.	01675										
P01424 TCR0004.	01435										
P01471 TCR0005.	01503										
P01532 TCR0006.	01544										
P01561 TCR0007.	01631	01631									
P01600 TCR0010.	01612										
P01647 TCR0011.	01661										
P01720 TCR0012.	01727	01727									
P01742 TCR0013.	01753	01753									
P01766 TCR0014.	01777	01777									
00351 TCRN											

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30 TMIN(I) = TPJ
40 DO 10 II = 1, NHT
   J = IHT(II)
   I = II + NOFFSET
   RIN(I) = RP(J)
10 TMIN(I) = TP(J)
   NTA = NMIT + NOFFSET
   IFAS = 0
   ICALL = 54
   CALL GORPRINT(13)
   ICALL = 62
   CALL GORPRINT(11)
   CALL FOOTEST
   ICALL = 59
   CALL GORPRINT(13)
   IF (LOADOPT - 3) 70, 50, 50
50 IFSA/E = IFAS - NOFFSET
   RETURN IF NO RVS ADDED
C
C IF (NOFFSET .LP. 0) 80 TO 70
C IF THIS TEST WAS SUCCESSFUL, RESET LIST TO OMIT ONE OF THE ADDED
C RVS TO OBTAIN CORRECT DELCRAFT AND DELRAFT.
   IF (IFSAVE - NMIT) 59, 51, 51
51 NOFFSET = NOFFSET - 1
   NTA = NTA - 1
   DO 55 I = 1, NTA
     RIN(I) = TMIN(I + 1)
55 TMIN(I) = TMIN(I + 1)
   CALL FOOTEST
   ICALL = 59
   CALL GORPRINT(13)
59 IFAS = IFSAVE
   DO 60 I = 1, NMIT
     TOLY(I) = TOLY(I + NOFFSET)
60 DELRAFT(I) = DELRAFT(I + NOFFSET)
70 CONTINUE
   ICALL = 68
   CALL GORPRINT(15)
   IOTA = IOTA - 1
   RETURN
END

```

31900
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
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57000
58000
59000
60000
61000
62000
63000
64000
65000
66000
67000
68000
69000
70000

S.ATS

TEST

PROGRAM LENGTH
ENTRY PRINTS
BLOCK NAMES

TEST

FOOTIO
LOADATA
PARAMETR
PCTENT
1
3
DERUG
PRINT

EXTERNAL SYMBOLS

ORORICT.
GPPRINT
FOOTEST

IDENT

00243
00004
00102
02764
00431
00532
05154
00403
00025
00002

TEST

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ED

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AGC	000450	000451	000452	000453	000454	000455	000456	000457	000458	000459	000460	000461	000462	000463	000464	000465	000466	000467	000468	000469	000470	000471	000472	000473	000474	000475	000476	000477	000478	000479	000480	000481	000482	000483	000484	000485	000486	000487	000488	000489	000490	000491	000492	000493	000494	000495	000496	000497	000498	000499	000500	000501	000502	000503	000504	000505	000506	000507	000508	000509	000510	000511	000512	000513	000514	000515	000516	000517	000518	000519	000520	000521	000522	000523	000524	000525	000526	000527	000528	000529	000530	000531	000532	000533	000534	000535	000536	000537	000538	000539	000540	000541	000542	000543	000544	000545	000546	000547	000548	000549	000550	000551	000552	000553	000554	000555	000556	000557	000558	000559	000560	000561	000562	000563	000564	000565	000566	000567	000568	000569	000570	000571	000572	000573	000574	000575	000576	000577	000578	000579	000580	000581	000582	000583	000584	000585	000586	000587	000588	000589	000590	000591	000592	000593	000594	000595	000596	000597	000598	000599	000600	000601	000602	000603	000604	000605	000606	000607	000608	000609	000610	000611	000612	000613	000614	000615	000616	000617	000618	000619	000620	000621	000622	000623	000624	000625	000626	000627	000628	000629	000630	000631	000632	000633	000634	000635	000636	000637	000638	000639	000640	000641	000642	000643	000644	000645	000646	000647	000648	000649	000650	000651	000652	000653	000654	000655	000656	000657	000658	000659	000660	000661	000662	000663	000664	000665	000666	000667	000668	000669	000670	000671	000672	000673	000674	000675	000676	000677	000678	000679	000680	000681	000682	000683	000684	000685	000686	000687	000688	000689	000690	000691	000692	000693	000694	000695	000696	000697	000698	000699	000700	000701	000702	000703	000704	000705	000706	000707	000708	000709	000710	000711	000712	000713	000714	000715	000716	000717	000718	000719	000720	000721	000722	000723	000724	000725	000726	000727	000728	000729	000730	000731	000732	000733	000734	000735	000736	000737	000738	000739	000740	000741	000742	000743	000744	000745	000746	000747	000748	000749	000750	000751	000752	000753	000754	000755	000756	000757	000758	000759	000760	000761	000762	000763	000764	000765	000766	000767	000768	000769	000770	000771	000772	000773	000774	000775	000776	000777	000778	000779	000780	000781	000782	000783	000784	000785	000786	000787	000788	000789
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C00000	LOADMPT	00022	00023	00121	00121	00133	00133	00166	00167
C00304	LGST								
C00001	MAXMIT								
C00121	MAXLOAD								
C00000	MAXPOT								
C00000	MAXRV								
C00000	MAXSYS								
C00051	MINLOAD	00026	00026						
C00136	MISS								
C00311	MTYPE								
C02735	NADREN								
C02763	NADDOLOD								
C00020	NADREF								
C00064	NHIT	00027	00027	00054	00055	00076	00076	00133	00166
C00303	NLGST								00167
C00135	NMISS								
P00237	NN	00030	00032	00043					
P00060	NORFSEI	00022	00033	00063	00077	00125	00126	00136	00174
C02737	NONTAP								00201
C00001	NRVADO	00100	00100	00137	00137	00140	00142	00143	
C00002	NTAR								
C02736	NTORADO	00000	00005						
XC0001	OROCICT.								
C00374	RMIT								
C00003	RIN	00047	00047	00067	00067	00147	00147	00150	
C00000	RP	00036	00036	00065					
P00241	RPJ	00037	00046						
C00144	PVALP								
C00376	SINAV								
C00226	SIMES								
C00400	SIMMIT								
P00004	TEST	00004							
C00027	THIN	00051	00051	00073	00073	00151	00151	00152	
C00375	THIT								
C00402	THOLD								
C00241	THORWAY								
C00111	TOFLY	00176	00176	00177					
C00062	TP	00040	00040	00071	00071				
P00242	TPJ	00041	00050						
P00053	TS00001.	00044							
P00076	TS00002.	00056							
P00154	TS00003.	00144							
P00207	TS00004.	00170							
C00000	VAL								
C00144	VALFIRST								
P00046	VS00001.	00052							
P00061	VS00002.	00075							
P00147	VS00003.	00153							
P00173	VS00004.	00206							
	00146 SYMBOLS								

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```

C$HRR      SUPPORTIVE TRANSFER(M)
C          TRANSFER 1JUN71
C          THIS ROUTINE TRANSFERS DATA FROM TPALOC FILE TO THE ALOCGRP FILE.
C          RAIDATA 1JUN71
C          COMMON/ RAIDATA/ MT, JGRNDP, JCORR, INDEX(1500), TOTLAT(1500)
C          1      * TGLONG(1500), RVAL(1500), PLAT(1500), DLONG(1500)
C          2      * LRAID, NTRAX, LCPTR(1500)
C          DIMENSION R(1500), TMTA(1500), IFOR(1500), IBACK(1500), IDUM(16)
C          EQUIVALENCE (R, TOTLAT), (TMTA, TGLONG), (IFOR, PLAT), (IBACK,
C          IDLONG), (IDUM, INDEX)
C          TYPE LOGICAL LIFIX
C          COMMON/4/ DESTG(1500), TASK(1500), CMTRYLOC(1500), FLAG(1500)
C          RAIDATA:
C          TAPEHARR 1JUN71
C          COMMON /ITP/ ITP
C          COMMON /TWORD/ TWORD
C          EQUIVALENCE (ITWORD, TWORD)
C          COMMON /HYIDENT/ HYIDENT
C          COMMON /NGPRINT/ NGPRINT
C          COMMON /IFPRINT/ IFPRINT(16)
C          COMMON /FILEL/ FILEL, INLUMMO, INDAT, INFORM, INSECR,
C          1      INTIME, INLENGTH, INCOMM(5)
C          COMMON/ MYLABEL/ MYFORM, MYSECR, MYLENGTH, MYCOMM(3)
C          TAPEHARR
C          DEBUG 1JUN71
C          COMMON /DEBGR/ IOTA, ICAMFROM(20)
C          DEBUG
C          PRINT 1JUN71
C          COMMON /PRINT/ ICALL, IMUST
C          PRINT
C          TOTAL=TOTAL+1
C          ICAMFROM(TOTAL) = 8*MYTRANSFEN
C          ICALL = 26
C          10 CALL CPRINT(16)
C             IAFAN=ITP
C             IF (INLGT,LRAID)140,26
C          20 CALL ROADRAY(MT,N)
C          30 ITP=IWRITE
C             CALL WRARRAY(MT,N)
C             ITP=IREAD
C             GO TO 9999
C          40 MYTIMES=N/LRAID
C             MEA =N-LRAID*MYTIMES
C             DO 60 I=1,MYTIMES
C                 CALL ROADRAY(MT,LRAID)
C             50 ITP=IWRITE

```


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```
CALL WRARRY(NT,LRAD)  
ITP=IOEAR  
6A CONTINUE  
CALL WRARRY(NT,MEX)  
70 ITP=IWRITE  
CALL WRARRY(NT,MEX)  
ITP=IREAD  
9099 IOTA=IOTA-1  
RETURN  
C  
ENTRY INITTRANS  
IWRITE  
RETURN  
END
```

26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000

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5.ATS TRANSFER

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3

INENT TRANSFER

00165
00106
00004
21534
13560
00001
00001
00001
00001
00001
00012
00014
00010
00025
00002

INITTRANS
TRANSFER
CARDATA
A
ITP
TWOPH
MYICENT
MOBPRINT
IFPRINT
FILABEL
MYLABEL
DEFIN
PRINT
GRODICT.
TOPPRINT
RMRBRAY
-RMRBRAY

PROGRAM LENGTH-
ENTRY POINTS
BLOCK NAMES

EXTERNAL SYMBOLS

S.ATS TRANSFER

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P0115	REGIM.	00141	00147	00153					
C0479	CNTGVLOC								
C0060	DESIG	00006	00017	00030	00035	00055	00042	00072	00077
P0701	DICT.								
C1354	DLAT								
C1517	PLONS								
P0142	ENDING.	00007	00105	00111	00114	00115	00116	00116	00117
P0000	EXIT.	00145							
C1624	FLAG								
P0003	FORMAT.	00012							
P0023	FR00001.	00127	00130						
P0031	FR00002.	00137							
P0036	FR00003.	00140							
P0022	FR00004.	00135	00136						
P0054	FR00005.	00131	00132						
P0012	FR00006.	00133	00134						
P00156	GETPL.	00122							
P00146	GETPU.	00125	00152						
P0002	GETPIAT	00016							
P00140	I	00052	00066						
C14517	IRACK								
C00004	ICALL	00015	00015						
C00001	ICAMPOW	00014							
C00003	IDUM								
C13563	IF00								
C00000	IFTDONT								
C00001	IP001								
C00007	INCCOM								
C00002	INDATF								
C00003	INDEX								
C00003	INFORM								
C00000	INITFNT								
P00115	INITIAL.	00007	00111						
P00106	INITTRANS	00106							
C00006	INLGTH								
C00001	INPUNMO								
C00004	INSECO								
C00005	INTIME								
C00005	IOTA								
P00161	IREAN	00010	00010	00011	00013	00013	00103	00103	00106
C00000	ITP	00022	00037	00064	00101	00040	00060	00065	00075
		00021	00021	00033	00033	00040	00060	00065	00075
		00075	00102	00102					
C00000	ITW000	00032	00057	00074	00113				
P00162	IS0ITP								
P00016	.10	00025	00025						
P00027	.20								
P00032	.30	00026							
P00042	.40								
P00057	.50								
P00066	.60								
P00074	.70								
P00103	.8000	00041							
P00003	.10000	00012							
C00002	JCOM								

5.475 TRANSFER

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ED

0

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C00001 JGROUP
C21455 LFIX
C21453 LRAIN
C00003 MYFORM
C00000 MYFORM
C30000 MYIDENT
C00002 MYLNETH
C00001 MYSECH
P00003 N
P00163 MEX
C00000 MOPJINT
C00000 NT
P00164 NTIMFS
C21454 NTMAX
P00141 PF00002
X00001 OADICT.
C02737 R
X00003 PCARRAY
C10627 RVAL
C02734 TASK
C02737 T07LAT
C05473 T07LOW
C05473 TNETA
P00004 TRANSFER
P00067 TS00001.
C00000 TWORD
X00004 WARRAY
P00054 W00001.
00121 SYMPOLS

00024 00024 00044 00044 00044 00044 00056 00063
00023 00031 00036 00042 00050 00112
00051 00073 00100
00031 00036 00056 00063 00073 00100
00045 00067 00067
00126 00005 00107
00000
P0027 00054 00071
00004
00053
00034 00001 00076
00070 00070

```

FUNCTION UPTODOWN(I,R,AZ,M)
C      UPTODOWN IJUNT1
C      CUSE      FOOTDATA IJUNT1
C      COMMON /FOOTDATA/ GAS(2),BX(2,2),BAX(2,2),TOSSC1(2,2),TOSSC2(2,
1P,2),TEONE(2,2),TEW(2,2),TDEMOM(2),WQASIC(2,2),RADO(2,2),EDME(2,
2,ETW(2,2),DENOM, CONE(2,2), CTW(2,2), LLANDAT
C      COMMON /SMTDAT/ ALPHAZ(16),ALPHA1(16),ALPHA2(16),ACTAZ(16),METAL
1(16),RETA2(16),MAXRHOST(16),GTWO,GONE,GZERO,DONE,DZERO,LSMTDAT
C      TYPE REEL MAXRHOST
C      COMMON /DEMADO/ TOTFUEL, SRF(1(2), SRF2(2), SAFEXPI(2)
1      , SAFEXPI2(2), SAFDEN, LPEMDAT
C      C
C      DATA ILLMDAT = 57)
1      , ILSMTDAT = 117)
2      , ILEMDAT = 67)
C      CEND
C      FOOTDATA
C      GO TO 11000, 2000, 1000, 11000, 1
C      LONG RANGE SYSTEM
1000 UPTODOWN = 1.E+7
      RETURN
C      SHORT RANGE SYSTEM
C      UPTODOWN = (DOMEH) * DZERO
      RETURN
C      11000 PRINT 11001,I
11001 FORMAT(//I,X,15(1H),3PM THERE IS NO DATA FOR MIV SYSTEM NO. I,I)
      UPTODOWN = 1.E+7
      RETURN
      END

```

1800
53002
2000
3000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000

IDENT UPDOWN

00122
00022
00072
00164
00013

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES
FOOTDATA
SMOOTHAT
PENALTY

EXTERNAL SYMBOLS
THERMO.
OASIS-EL.
SYM.
OASIS-EL.

5.ATS LPT00000

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FD 0

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4

C00011 S0F0E4
C00005 S0F0E01
C00007 S0F0E02
X00003 STN.
C00042 T0E000
C00032 T0E00E
C00036 V0T00
X00001 T0E000.
C00012 T0SSC1
C00022 T0SSC2
C00000 T0T0E0L
P00022 LPT00000
P00054 VALUE.
00103 SYMBOLS

03043

00950

00622

00836

00040

00053

00105

FTMS.5

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FUNCTION VALFIX,FN)
CSUPR VALF 1JUN71
C
C COMPUTES VALUE
C
IF(X-CT.1)10,20
10 VALF=0.
RETURN
20 VALF=(1.-X)/(1.-FMAX)
RETURN
END

1000
5000
2000
3000
4000
5000
6000
7000
8000
9000
10000

.....

SATS

VALF

PROGRAM LENGTH
ENTRY POINTS
EXTERNAL SYMBOLS

VALF

OMGNICT.

IDENT

00074
00003

VALF

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ED

0

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P00026 REGIM.	00052	00061	00065		
P20001 DICT.	00055	00331	00032		
P00053 ENING.	00004	00013	00024	00024	00030
P00000 EXIT.	00057			00027	00030
P00003 FN	00017				
P00007 FP00001-	00040	00041			
P00015 FP00002-	00042	00043			
P00017 FP00003-	00050	00051			
P00020 FP00004-	00044	00045			
P00070 GETAL.	00033	00046			
P00040 GETPU.	00034	00064			
P00026 INITIAL.	00006				
P00012 -10					
P00014 -20	00011	00011			
P00071 -ERASE.	00014	00027	00022	00023	
P00044 PF00002-	00037				
P00052 PF00003-	00047				
P00001 Q00001-	00000	00004			
P00003 VALF	00003				
P00025 VALF.	00013	00023	00056		
P00003 X	00007	00015	00020		

00025 SYMBOLS

2075

2076

C	IDENTITY	SOURCE INDEX NUMBER	211000
C	SYMBOL	GROUP INDEX	212000
C	SYMBOL	COMBINATION INDEX ON BASE	213000
C	INSTRUM	VEHICLE INDEX	214000
C	JOB	REFUEL INDEX	215000
C	REAVLOD	RESELECTION INDEX	216000
C	RECHARGE	RESE INDEX	217000
C	TYPE	WEAPON TYPE	218000
C	BASELAT	BASE LATITUDE	219000
C	BASELONG	BASE LONGITUDE	220000
C	CHAP	NUMBER OF HADDERINGS	221000
C	MAPTYPE (1-4)	TYPE OF MAPPING	222000
C	ORCLAT (1-4)	LATITUDE OF MAPPING	223000
C	ORCLONG (1-4)	LONGITUDE OF MAPPING	224000
C	TOBJECT (1-2)	PLACE OF MAPPING	225000
C	ATTOR (1-2)	LOCAL ATTITUDE ENCOUNTERED	226000
C	SURVOR (1-3)	CUMULATIVE SURVIVAL PROBABILITY	227000
C	ESTIM01	LOW ALTITUDE RANGE AVAILABLE FOR USE IN COMBINATION WITH TO OBJECTS	228000
C	ESTIM02	LOW ALTITUDE RANGE AVAILABLE FOR USE BEFORE FIRST TARGET	229000
C	ESTIM03	LOW ALTITUDE RANGE AVAILABLE FOR USE AFTER FIRST TARGET	230000
C	SPDLOC	SPEED AT LOW ALTITUDE	231000
C	SPDHI	SPEED AT HIGH ALTITUDE	232000
C	RANGE	RANGE OF VEHICLE	233000
C	DELAY	DELAY	234000
C	LEG	LEG	235000
C	FLY	FLY	236000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	237000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	238000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	239000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	240000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	241000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	242000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	243000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	244000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	245000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	246000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	247000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	248000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	249000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	250000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	251000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	252000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	253000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	254000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	255000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	256000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	257000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	258000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	259000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	260000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	261000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	262000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	263000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	264000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	265000
C	INDICATES	INDICATES OUTPUT REQUIRED FOR MAPPING GROUP	266000

C	CONSISTM	HIGH ALTITUDE	267000
C	ATTN-10	ATTITUDE OF CORRELATION AT HIGH ALTITUDE ITM	268000
C	ATTN-10	DEFENSES SUBMERGED	269000
C	ATTN-10	RATIO OF LOW TO HIGH ALTITUDE ALTITUDE	270000
C	ATTN-10	CHARACTERISTIC RANGE OF DEFENSE DEFENSAS	271000
C	ATTN-10	NUMBER OF SEPARATE DEFENSE ZONES WHICH TO	272000
C	ATTN-10	CORRELATION	273000
C	ATTN-10	LENGTH OF LOW DEFENSE ZONE	274000
C	ATTN-10	ATTITUDE IN LOW DEFENSE ZONE	275000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	276000
C	ATTN-10	WFO AND PWI	277000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	278000
C	ATTN-10	WFO AND PWI	279000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	280000
C	ATTN-10	WFO AND PWI	281000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	282000
C	ATTN-10	WFO AND PWI	283000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	284000
C	ATTN-10	WFO AND PWI	285000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	286000
C	ATTN-10	WFO AND PWI	287000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	288000
C	ATTN-10	WFO AND PWI	289000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	290000
C	ATTN-10	WFO AND PWI	291000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	292000
C	ATTN-10	WFO AND PWI	293000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	294000
C	ATTN-10	WFO AND PWI	295000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	296000
C	ATTN-10	WFO AND PWI	297000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	298000
C	ATTN-10	WFO AND PWI	299000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	300000
C	ATTN-10	WFO AND PWI	301000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	302000
C	ATTN-10	WFO AND PWI	303000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	304000
C	ATTN-10	WFO AND PWI	305000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	306000
C	ATTN-10	WFO AND PWI	307000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	308000
C	ATTN-10	WFO AND PWI	309000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	310000
C	ATTN-10	WFO AND PWI	311000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	312000
C	ATTN-10	WFO AND PWI	313000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	314000
C	ATTN-10	WFO AND PWI	315000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	316000
C	ATTN-10	WFO AND PWI	317000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	318000
C	ATTN-10	WFO AND PWI	319000
C	ATTN-10	TEMPORARY STORAGE FOR VALUES USED IN CORRELATION	320000

C	ALWAYS	NUMBER OF TARGETS HIT WITH ASM.	54000
C	SMIT	NUMBER OF SORTIE POINTS AVAILABLE TO (C)PIGMA.	90000
C		RECOVERED, PITCH.	91000
C	INITIAL	SORTIE INDEX TO 1-TH ROUTE PRIOR TO 1-SORT.	92000
C	FLY/ID	SORTIE INDEX TO 1-TH FLIGHT POINT--NOT THE SAME	93000
C		AS 1-TH FOR ASMS.	94000
C	LASTPAV	SORTIE POSITION OF LAST PAYING SORTIE PRIOR TO	95000
C		PRE-INIT.	96000
C	LASTYST	SORTIE POSITION (X,Y,Z) FOR LAST TARGET.	97000
C	SMIT	NUMBER OF TARGETS IN POTENTIAL TARGET AREA NOT	98000
C		CURRENTLY IN SORTIE.	99000
C	TO IT(T)	SORTIE INDEX OF 1-TH OMITTED TARGET	100000
C	PAVAIL	NUMBER OF SPACES IN POTENTIAL TARGET AREAS	101000
C		AVAILABLE FOR NEW TARGETS.	102000
C	IAVAIL(U)	SORTIE INDEX OF 1-TH AVAILABLE SPACE.	103000
C	LASTYMT(U)	LINK FOR TARGET U TO SORTIE HIT LIST IF POSITIVE	104000
C		OR LIST IF NEGATIVE.	105000
C	IT(U)	POINTED UP IN FLIGHTING LOST TARGETS.	106000
C	LOSTGT(U)	SORTIE INDEX TO 1-TH LOST TARGET	107000
C		NUMBER OF LOST TARGETS.	108000
C	ALOSTGT	NUMBER OF WARM-UPS CARRIED ON THIS SORTIE.	109000
C	WARMUP	NUMBER OF ASMS AMONG WARM-UPS ON THIS SORTIE.	110000
C	WARMUP	WARM-UP OF ASMS THIS SORTIE.	111000
C	WARMUP	ESTIMATED DISTANCE FROM TARGET TO ENTRY POINT.	112000
C	WARMUP	*****	113000
C	COMMON/VAL/	THE LOWEST PAYOFF FOR A ROOM IN THE SORTIE, FOUND	114000
C	WARMUP	BY EVAL.	115000
C		THE SORTIE INDEX OF THE ROOM WITH LOWEST PAYOFF	116000
C	JOEUP	WITH	117000
C	WARMUP	THE MAXIMUM PAYOFF INCREMENT BY USING ASM ON	118000
C		OMITTED TARGETS.	119000
C	JOEUP	THE SORTIE INDEX OF THE TARGET WITH MAXIMUM	120000
C		INCREMENT, WARMUP.	121000
C	WARMUP	THE MAXIMUM PAYOFF FOR AN ASM IN THE SORTIE.	122000
C	JOEUP	THE SORTIE INDEX OF THE TARGET FOR AS WITH	123000
C		MINIMUM PAYOFF, WARMUP.	124000
C	WARMUP	THE MAXIMUM PAYOFF INCREMENT FOR A ROOM ON AN	125000
C		OMITTED TARGET.	126000
C	JOEUP	THE SORTIE INDEX OF THE TARGET SHOWING MAXIMUM	127000
C		PAYOFF, WARMUP.	128000
C	WARMUP	MAXIMUM PAYOFF INCREMENT OBTAINABLE BY USE OF	129000
C		ASM INSTEAD OF ROOM.	130000
C	JOEUP	THE SORTIE INDEX OF ROOM TARGET SHOWING MAXIMUM	131000
C		PAYOFF INCREMENT, WARMUP.	132000
C	VALSORTIV	ESTIMATED TOTAL SORTIE VALUE, EVALUATION (LASTPAV)	133000
C	JAF	INDEX OF TARGET TO PRECEDE INSINUATION.	134000
C	KALC	SIGNAL TO EVAL ROUTINES TO SKIP REPETITION OF	135000
C		CALCULATIONS.	136000
C	VALDIST	VALUE PER UNIT DISTANCE OF EXTRA RANGE AS	137000
C		CALCULATED BY FLIGHTMAN.	138000
C	VALWAR	MAXIMUM POSSIBLE VALUE OF SORTIE AS CURRENTLY	139000
C		DEFINED.	140000
C	JOEUP	INDEX OF TARGET IN SORTIE SHOWING LARGEST SEQUENCE	141000
C		ERROR.	142000
C	ISVAPLUN	NOT CURRENTLY IN USE	143000
C			144000

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C.....
C COMMON/CHEPLAN/
C (IN EFFECT, PART OF CALLING SEQUENCE FOR SUBMUTINE CHEPLAN)
C JMO SORTTGT INDEX FOR TARGET TO BE ADDED OR DELETED
C BY CHEPLAN.
C IAIM SORTTGT INDEX TO FLIGHT POINT FOR ASM LAUNCH.
C ISCAN CONTROLS NUMBER OF SORTIE POINTS SCANNED BY EVAL
C ROUTINES.
C JFT SORTTGT INDEX TO TARGET TO PRECEDE INSORTION.
C JTH CALLING PARAMETER FOR CHEPLAN
C BTG CALLING PARAMETER FOR CHEPLAN
C QTA CALLING PARAMETER FOR CHEPLAN
C ATO CALLING PARAMETER FOR CHEPLAN
C.....
C COMMON/FIRMANCH/
C CENTLAT LATITUDE AND LONGITUDE OF CENTROID OF LAUNCH BASES
C CENTLONG IN GROUP.
C.....
C COMMON/PRINT/
C ATLEGT NOT CURRENTLY USED.
C ATLEGR ATTRITION ON LEG.
C RANGSURP RANGE SURPLUS WHEN WHOLE FLIGHT IS HIGH ALTITUDE.
C DISTANCE TOTAL LENGTH OF CURRENT FLIGHT ROUTE.
C RSLW AMOUNT OF INCREMENTAL RANGE MEASURED FOR LOW
C ALTITUDE PRIOR TO THE FIRST TARGET.
C AVAILW TOTAL AMOUNT OF INCREMENTAL LOW ALTITUDE RANGE
C (I.E., SURPLUS HIGH ALTITUDE RANGE CONVERTED TO
C THE NUMBER OF MILES OF POTENTIAL LOW ALTITUDE).
C VALIT VALUE OF SORTIE REMAINING, AFTER FIRST TARGET HAS
C BEEN REACHED.
C.....
C FSTATTP ATTRITION RATE AT POINT WHERE SORTIE GOES LOW ON
C LEG TO FIRST TARGET, OR HIGHEST RATE IF SORTIE
C DOESN'T GO LOW.
C VALTGT TOTAL VALUE OF SORTIE.
C PRATRATE ATTRITION RATE IN CURRENT PRE-CORRIDOR LEG.
C VALONT VALUE OF SORTIE FROM CURRENT LEG AFTER FIRST
C TARGET; TO RECOVERY.
C CURVAL HIGHEST PRODUCT OF VALUE-ON AND ATTRITION OF AREAS
C COMPETING FOR LOW ALTITUDE. USED IN COMPUTING
C VALUE PER UNIT DISTANCE OF LOW ALTITUDE RANGE.
C CRITATT HIGHER OF THE TWO PRODUCTS OF VALUE-ON AND
C ATTRITION FOR PRE-CORRIDOR LEGS AND LEGS AFTER
C FIRST TARGET. USED IN DETERMINING THE AMOUNT
C OF LOW ALTITUDE RANGE (ADLOW) TO BE PUT IN THE
C FIRST TARGET LEG.
C ADLOW AMOUNT OF LOW ALTITUDE RANGE CURRENTLY BEING
C ALLOCATED.
C JMOHE SORTTGT INDEX OF FIRST TARGET IN SORTIE.
C DISTSV DISTANCE SAVED BY OMITTING A TARGET JM.
C ATADPA DIFFERENCE IN AREA ATTRITION IF A TARGET JM IS
C OMITTED.
C ATLLOC LOCAL ATTRITION OF TARGET JM.
C VALO VALUE OF OMITTING TARGET JM. DUE TO DECREASED
C ATTRITION AND RANGE SAVED.
C JX2 INDEX USED IN EVALOR FOR DETERMINING POSITION

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C OF INSERTION FOR NEW TARGET.
C DISTAD DISTANCE ADDED BY INSERTING TARGET JK 1. NORMAL
C ADJUST POSITION
C ADJUST DISTANCE ADDED BY INSERTING TARGET JK 1. ALTER-
C NATIVE POSITION.
C ATTACH ATTACHMENT ADDED BY INSERTING TARGET JK IN SORTIE.
C ATTACH ATTACHMENT ADDED BY INSERTING TARGET JK IN SORTIE.
C OVALD ESTIMATED ATTACHMENT ON LEG TO NEW TARGET JK BEING
C OVALD INSERTED.
C OVALD DIFFERENTIAL VALUE OF LEAVING NEW TARGET IN THE
C OVALD ONLY LIST REMAINS WHEN INSERTING IT.
C JX1 INDEX USED IN EVALUATION FOR DETERMINING POSITION
C DIST1 OF INSERTION FOR NEW TARGET.
C DIST2 LENGTH OF LEG PRECEDING TARGET JK.
C DIST2 LENGTH OF LEG FROM TARGET JK TO NEXT TARGET
C *****
C COMMON/CONTROL /
C EPSILON SET TO .001. USED IN TEST OF SIGNIFICANCE.
C KHALST SET TO 1. NOT CURRENTLY USED.
C *****
C COMMON/DEBUG/
C TOTA INDEX TO CELL CONTAINING MOLLERITH NAME OF
C ICMWFRM(I) SUBROUTINE CURRENTLY IN CONTROL.
C *****
C COMMON/SKIP/
C KOLD CONTAINS MOLLERITH IDENT OF LAST CALL OF PRMTF.
C ISKIP SET TO 1 TO AVOID PRINTING MESSAGE BETWEEN EACH
C *****
C COMMON/FLAG/
C IFLAG(CALL) SET TO 1 IF ICALL-TH PRINT IS ACTIVE, 0, IF NOT.
C *****
C COMMON/PCALL/
C IPASS OBTAIN PASS IN PROCESS() OR 21.
C ICALL PRINT REQUEST NUMBER
C *****
C COMMON/A/
C ISEC(500) TEMPORARY STORAGE USED BY SUBROUTINE ORDER.
C BEGIN 9/10/69 *****
CUSE COMMON/REGIN/REGIN
C EQUIVALENCE (TEMPAC,REGIN)
C REGIN *****
CUSE PLANTYPE 9/10/69 *****
C COMMON/PLANTYPE/INITSTW,COMMON,COMMON
C PLANTYPE *****
CUSE OPENREF 200071 *****
C COMMON /OPENREF / RPLIN(50),DPLAT(50),DPLONG(50),REFLAT(20),
C 1 REFLONG(20)
C DPREREF *****
CUSE PAYLOAD 9/26/69 *****
C COMMON/PAYLOAD/NORMWR(40),IMW(40),
C 1 NORMWR(40),IMW(40),IMW(40),IMW(40),
C 2 IMW(40),IMW(40),IMW(40),IMW(40),IMW(40),
C PAYLOAD *****
CUSE ASNTABLE IFER71 *****

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COMMON/ASPTABLE/I=NDASH(20),RANGEASH(20),RELAS=1(20),CEPASH(20),
1SPEEDASH(20)
CEND
CUSE
ASPTABLE
CORCHAR IFERT1
COMMON/CORCHAR/PCLAT(30),PCLONG(30),PCZONE(30),RPLAT(30),
IRPLONG(30),RPLAT(30),IRPLONG(30),IRPLAT(30),RPLAT(30),
2ATRCORR(30),ATRSUPP(30),MLOATTM(30),DEFRANGE(30),MORCROFF(30),
3DEFDIST(30,3),ATTOPRE(30,3),NDATA
TYPE INTEGER PCZONE
TYPE REAL KORSTYLE
CEND
CUSE
CORCHAR IFERT1
COMMON/MASTER/INDATE,INDTIME,ISIDE,INDIPT,COMMON,NDPEN,RECOVER
1,REF,NDPEN,NEGANTYPE,NGROUP,NTOTBASE,MPAYLOAD,NDTYPE,NDTYPE
2,NTANKAS,MCOMPLEX,NCCLASS,MLERT,NTGTS,MCORTYPE,MCNTRY
MASTER
SETAPE 9/10/69
COMMON/SETAPE/ICKSW,LARTAP,LENGTH,MHCLG
SETAPE
ARAYSIZE 9/10/69
COMMON/ARAYSIZE/MHASFPG,CNT,ML,MSIRX,MSORTY,MSRT,MPLY,MATPA
ARAYSIZE
DATA
1(MHASFPG=150), (MC=30), (MT=110), (ML=3), (MSIRX=10), (MSORTY=100)
2 (MSRT=100), (MPLY=10), (MATPA=25)
PRINTOPT 9/10/69
COMMON/PRINTOPT/ISRTYGT,ICURSTY,ICURHAID,IMSTRCP,JEVAL,
1YRADS=,ICMPLAN,INITOPT,INDEX,ITGASOM,
2IGRTYPE,IRPDATA,ICORCAN,ISTWSUM,ICOMRSMR,
3ICOMLON,INEXFLT,ICERUS,MHFLJLJOUTSMT,MPAYLOA
PRINTOPT
DEHUG 9/10/69
COMMON/DEHUG/TOTA,ICAMRNM(20)
GENUS
PCALL 9/10/69
COMMON/PCALL/TPASS,ICALL
PCALL
CALL VPSTALG
CALL STORAGE
CALL TIME(1)
ICAT=1
ICATFROM:(ICAT)=RM POSTALY
CALL SETFLAG
ICALL=122
MMORTIF(-12,0,MMORTSIZE)
NTAPE=3
CALL GETGROUP
ICAT=TOTA-1
WRITE (44,7777)
7777 FORMAT(41M) ***** PROCESSOR POSTALUC COMPLETED *****
STOP
END

```

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IDENT POSTALOC

POSTALOC	00077
FILES	00014
INPUTFL	00020
WGIN	00002
PLANTYPE	00001
OPENREF	00083
PAYLOAD	00274
ASMTABLE	00420
CORACKAN	00144
MASTER	01131
SETAPE	00027
ARAYSIZE	00004
PRINTOPY	00611
DEHIN	00024
PCALL	00025
	00002

EXTERNAL SYMBOLS

ORIENTRY
THE NO.
QROSTOPS
QROJECT.
VPOSTALO
STOWAGE
TIME
SETFLAG
PRINTF
GETGROUP
STM.

5.4TS POSTALOC

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ED

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C00012 ALOCGRP
 C00000 ALOCTAR
 C00416 ATTRCORR
 C00776 ATTRPRE
 C00454 ATTRSUPP
 C00002 BASFILE
 C00000 BEGIN
 C00074 CEPASH
 C00002 CORROGR
 C00001 CORMSL
 P00203 CPFWT.
 C00322 CRENGTHM
 C00644 DEFOIST
 C00559 DEFRAUGE
 P00001 DICT.
 C00002 DPLAT
 C00000 DPLINK
 C00144 DPLONG
 P00072 ENDING.
 C00226 ENTILAT
 C00264 ENTILONG
 C00016 EVENTAPE
 P00000 EXIT.
 P00003 FORMAT.
 X00012 GETGROUP
 P00067 G600000.
 C00512 HILOATTR
 C00310 IAS-
 C00001 ICALL
 C00001 ICA-EROM
 C00006 ICMGPLAN
 C00000 ICKSW
 C00014 ICONCAN
 C00017 ICONIDOR
 C00016 ICONESHR
 C00002 ICJRWALD
 C00001 ICUSSTY
 C00021 IDEMGE
 C00001 IDENTNO
 C00004 IEVAL
 C00013 IGRPDATA
 C00012 IGRPTYPE
 C00000 IMDATE
 C00015 IINDEX
 C00007 IINITOPT
 C00550 IMIRV
 C00020 IMERTPLT
 C00000 INITSTRM
 C00203 IMPTEL
 C00000 IOTA
 C00000 IPASS
 C00005 IRAIOSHR
 C00003 IRSTKCPH
 C00002 ISIDE-

00067

00020 00022 00024 00026 00032 00042 00050 00056 00063 00066 00071

00071

00072

00036 00045

00055

00061

00043 00044

00040

00034 00035 00037 00037 00057 00057 00060

2085

SATS POSTALOC

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EO 0

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C00014 N10THASE
 C00012 NTYPE
 C00017 N4-H TYPE
 C00000 PCLAT
 C00036 PCLONG
 C00074 PCZONE
 C00017 PLANTAPE
 P00016 POSTALOC
 X00011 PHNIF
 X00004 QRODICT.
 X00001 QROENTRY
 X00003 QROSTOPS
 C00024 RANGEAS
 C00226 REFLAT
 C00252 REFLONG
 C00050 RELAS
 C00132 RPLAT
 C00170 RPLONG
 X00010 SETFLAG
 C00120 SPEEDAS
 X00013 STM.
 X00006 STORAGE
 C00014 STRKFII
 C00000 TASFAC
 C00000 TGTFILE
 X00002 TEND.
 X00007 TIMEFE
 C00010 IMPALOC
 X00005 VPOSTALN
 P00076 -W
 00212 SYMHCLS

00017

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SUBROUTINE CENTROID(RP,XLAT,XLONG,CXLAT,CXLONG)
  CSUMR      CENTROID  START
  DIMENSION XLAT(1),XLONG(1)
  CXLAT = XLAT(1)
  CXLONG = XLONG(1)
  DO 100 N=2,NP
    X = XLONG(N)-CXLONG
    DIF = 445F(X)
    S = X/DIF
    IF(0IF.GT.100.0)2,3
  2 S = -S
    DIF = 340.0-DIF
  3 DIF = 0IF/2
    CXLONG=CXLONG+S*DIF
    IF(CXLONG.GT.100.0)
  10 CXLONG = CXLONG-360.
  60 TO 100
  20 IF(CXLONG.GT.360.0)30,100
  30 CXLONG = CXLONG-360.0
  100 CXLAT = CXLAT+XLAT(N)
  RETURN
END

```

1000
 1000
 2000
 3000
 4000
 5000
 6000
 7000
 8000
 9000
 10000
 11000
 12000
 13000
 14000
 15000
 16000
 17000
 18000
 19000
 20000
 21000
 22000

SATS CENTROID

PROGRAM LENGTH
ENTRY POINTS
EXTERNAL SYMBOLS
CENTROID
DIGESTION
ORPHICT.

IDENT
00207
00003

CENTROID

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EO

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EN

P0007	4897..	00162	00170	00174					
P0000	CENTROID	00003	00020	00060	00063	00066	00050	00053	00055
P00202	COUNT.	00017	00020	00060	00063	00066	00050	00053	00055
P00003	CALC	00010	00020	00060	00063	00066	00050	00053	00055
P00003	CALC	00010	00020	00060	00063	00066	00050	00053	00055
P00001	WCT.	00005	00020	00060	00063	00066	00050	00053	00055
P00203	WCT.	00025	00020	00060	00063	00066	00050	00053	00055
P00103	ENING.	00006	00020	00060	00063	00066	00050	00053	00055
P00000	EXIT.	00105	00020	00060	00063	00066	00050	00053	00055
P00007	FP00001	00110	00020	00060	00063	00066	00050	00053	00055
P00010	FP00002	00125	00020	00060	00063	00066	00050	00053	00055
P00011	FP00003	00110	00020	00060	00063	00066	00050	00053	00055
P00012	FP00004	00140	00020	00060	00063	00066	00050	00053	00055
P00015	FP00005	00102	00020	00060	00063	00066	00050	00053	00055
P00021	FP00006	00120	00020	00060	00063	00066	00050	00053	00055
P00022	FP00007	00142	00020	00060	00063	00066	00050	00053	00055
P00040	FP00010	00156	00020	00060	00063	00066	00050	00053	00055
P00041	FP00011	00160	00020	00060	00063	00066	00050	00053	00055
P00044	FP00012	00150	00020	00060	00063	00066	00050	00053	00055
P00046	FP00013	00152	00020	00060	00063	00066	00050	00053	00055
P00050	FP00014	00154	00020	00060	00063	00066	00050	00053	00055
P00053	FP00015	00144	00020	00060	00063	00066	00050	00053	00055
P00055	FP00016	00146	00020	00060	00063	00066	00050	00053	00055
P00054	FP00017	00124	00020	00060	00063	00066	00050	00053	00055
P00057	FP00020	00112	00020	00060	00063	00066	00050	00053	00055
P00060	FP00021	00130	00020	00060	00063	00066	00050	00053	00055
P00063	FP00022	00132	00020	00060	00063	00066	00050	00053	00055
P00065	FP00023	00104	00020	00060	00063	00066	00050	00053	00055
P00066	FP00024	00134	00020	00060	00063	00066	00050	00053	00055
P00177	GEYAL	00075	00020	00060	00063	00066	00050	00053	00055
P00167	GEYAL	00100	00020	00060	00063	00066	00050	00053	00055
P00070	INITIAL	00006	00020	00060	00063	00066	00050	00053	00055
P00056	.100	00042	00020	00060	00063	00066	00050	00053	00055
P00044	.10	00043	00020	00060	00063	00066	00050	00053	00055
P00050	.20	00043	00020	00060	00063	00066	00050	00053	00055
P00031	.2	00030	00020	00060	00063	00066	00050	00053	00055
P00034	.3	00030	00020	00060	00063	00066	00050	00053	00055
P00053	.30	00030	00020	00060	00063	00066	00050	00053	00055
P00204	N	00014	00020	00060	00063	00066	00050	00053	00055
P00003	NP	00014	00020	00060	00063	00066	00050	00053	00055
P00106	PF00002	00101	00020	00060	00063	00066	00050	00053	00055
P00114	PF00003	00107	00020	00060	00063	00066	00050	00053	00055
P00122	PF00004	00115	00020	00060	00063	00066	00050	00053	00055
P00136	PF00005	00123	00020	00060	00063	00066	00050	00053	00055
P00162	PF00006	00137	00020	00060	00063	00066	00050	00053	00055
X00001	CLOC3100	00035	00020	00060	00063	00066	00050	00053	00055
X00002	CASDIC7	00000	00020	00060	00063	00066	00050	00053	00055
P00205	S	00026	00020	00060	00063	00066	00050	00053	00055
P00043	TS00001	00014	00020	00060	00063	00066	00050	00053	00055
P00021	WS00001	00062	00020	00060	00063	00066	00050	00053	00055
P00204	X	00023	00020	00060	00063	00066	00050	00053	00055
P00003	XLAY	00007	00020	00060	00063	00066	00050	00053	00055
P00003	XLONG	00011	00020	00060	00063	00066	00050	00053	00055
03005	SYMBOLS								

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SUBROUTINE CHGPLAN (IOPI)
  CSEQR  CHGPLAN 31JUL71 .....
  CUSE  PRINTOPT 9/10/69 .....
  COMMON/PRINTOPT, ISORTYGT, ICURSTY, ICURRAID, IMSTICPM, IEVAL,
1  ITRADSH, ICGRPLAN, ICORCAP, IINDEX, ITGASG,
2  IGRPTYPE, IGRDATA, ICORCAP, ISTRSUM, ICORSHR,
3  ICORIDSH, INFEXTL, IORDER, JMFUEL, JCUTSRT, JAVLCA,
  PRINTOPT .....
  CEND  CHANGES PLAN AS SPECIFIED BY SORTOPT .....
  C  .....
  C  SORTYGT 9/10/69 .....
  COMMON/SORTYGT/PRXPT, VPOBTGT(25), P(25,25), VALR(25), VALA(25),
1  V(25), GRMCP(25), ATLCCH(25), DISTLFG(25), DISTLWM(25), STP5,
2  SURV(25), WALDNE(25), VALON(25), VALA(25), EVALA(25), PREC(25)
  SORTYGT .....
  CSEQR  CURSORT 9/10/69 .....
  COMMON/CURTORT/NUMWHT, NUMROM, NUMJMS, NM1, IFLY(13), IMIT(13)
1  *LSTPAY, LSTYGT, NMWHT, IOMIT(25), NAVAIL, JAVAIL(25)
2  *LKMHT(25), ITOLD, LOSTYGT(25), MLOSTYGT, NUMMOS, NLS=5, RMGASM
3  *STF
  CURSORT .....
  CSEQR  CHGPLAN 9/10/69 .....
  COMMON/CHGPLAN/JDO, JAIN, ICAM, JAFI, ATO, OTA, BTO, OTR
  TYPE INTEGER ATO, OTA, BTO, OTR
  CHGPLAN .....
  CSEQR  GRPTYPE IFR1 .....
  COMMON/GRPTYPE/STATYPE, RANGF, CEP, SPEED, ALERTOL, NALITOL, RANGDEC
1  *ICLASS, NOFRSON, SPNFI, SPRL, SPDASH, MANGREF, NMPSITE, IREP
2  *IPECODE, IPENQUE, FUNCTION
  TYPE INTEGER FUNCTION
  TYPE REAL NALITOL
  GRPTYPE .....
  CSEQR  DATA(IRECOVER=2) .....
  CUSE  DERUG 9/10/69 .....
  COMMON/DERUG/TOTAL, ICAMPOM(25)
  DERUG .....
  CSEQR  PCALL 9/10/69 .....
  COMMON/PCALL/TPASS, ICALL
  PCALL .....
  CEND  ICOTA=ICOTA+1 .....
  ICAMPOM=ICOTA+8M CHGPLAN
  ICALL=AP
  CALL PRINTIT (IDERUG)
  C  IOP ALTERNATIVES, TOP= 1-ATO, 2-OTA, 3-BTO, 4-OTB
  C  MCR=AL=1
  C  GO TO (600,500,900,700), IOP
  C
  C  LOCAL SUBROUTINE ADD AS= ( OTA ) --ADD JACO IN POSITION IADD
  C
  C  JADD=JDO $ IADD=LKMHTM(JAFI)+1 $ IS=--LKMHTM(JADO)
  C  ATLOCMI(JCO)=AT(LOCMI(JCO)/1.E+50
  C  LOMIT=NMOMIT-1
  C  DC 510 IZ=IS, NMOMIT
  C  JX=COMIT(IZ-1) $ IOMIT(IZ)=JX
  C  LKMHTM(JX)=IZ
  C  510

```



```

IF (JOEL.EQ.1)COVER: 910,920
920 ALPHABETICALLY-1 & NAMECODE=ALPHABETICALLY-1 & LASTTGT=LASTTGT-1
930 (X-1)TGT(JOEL)=X-1
ITEM=IDEL
C IF IATM NEG,ADMS WILL RE OWN AIM PT.SATP RELOCATION OF ASSOC. ASMS
IF (IATM)999,940,940
940 IF (IFLY(ITEM)).EQ.100,945,1000
C IF ASM NOW IN VACATED POSITION,DELETE AND REINSEAT WITH NE- AIM POINT
C (SAVE INPUT PARAMETERS)
945 K1=J00 & K2=JAT & K3=IATM & K4=ALM0
950 J00=J00+1
J00=J00+1
C DEFLTE ASM
GO TO 600
960 IATM=ITEM-1
965 IATM=IATM+1
C DO NOT REINSEAT IF NO AIM POINT AVAILABLE
IF (IATM.GT.LASTTGT)985,970
C SKIP OVER ANY OTHER ASSOCIATED ASMS
970 IF (IFLY(1-2-3)).EQ.K1) 945,975
975 JAT=IFLY(IATM)
980 JAT=JAT & IATM=JAT
985 REINSEAT ASM TGT J00
GO TO 500
995 IF (J00=0).EQ.1) 991,995
991 JAT=JAT+1
GO TO 500
995 IF (IFLY(ITEM)).EQ.K1)945,995
995 J00=K1 & JAT=K2 & IATM=K3 & GO TO 1000
999 IATM=IATM
1000 CONTINUE
ICALL=60
CALL PRINTIT(ITEM,PLAN)
ICALL=70
CALL PRINTIT(ITEM,SOFT)
IOTA = IOTA - 1
RETURN
END

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5.415 CMEPLAN

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IDENT CMEPLAN

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00540
00005

CMEPLAN

PRINTOPT

00025

SORTTYGT

01751

CURSMTV

00214

CMEPLAN

00010

EMPTYDE

00022

DEENG

00025

PCALI

00102

EXTERNAL SYMBOLS

ORGNICT.

PRIITYT

DIFF

SATS CMEPLAN

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P00544	II	00074	00111	00236	00244	00261			
C00010	IINDEX								
C00007	IIMTOPT								
C00020	INEXTFLY								
P00500	INITIAL								
C00041	IOWIT	00055	00057	00057	00147	00225	00227	00227	00314
P00004	ICP	00024							
C00000	IOTA	00011	00012	00014	00014	00075	00075	00075	00476
C00000	IPASS								
C00020	IPFMODE								
C00005	IRAINSMA								
C00017	IRECMODE								
P00003	IRECOVER	00272	00347						
C00014	IREF								
C00003	ISIRICPM								
P00545	IS	00040	00047	00052	00214	00217	00222		
C00002	ISCAN								
C00008	ISIMTYPE								
C00000	ISRYTGT								
C00015	ISTRXSJM								
P00546	ITEP	00302	00365	00400	00405	00447			
C00311	ITGASGA								
C00155	ITOLN								
P00464	1200	00131	00204	00303	00370	00461			
P00031	500	00027	00435	00446					
P00060	510								
P00106	520	00026	00404						
P00133	600								
P00166	610								
P00205	700	00030							
P00238	710								
P00256	720								
P00274	730	00273							
P00301	740	00273							
P00304	900	00020							
P00311	910								
P00351	920	00347							
P00356	930	00350							
P00365	940	00363							
P00371	945								
P00400	950	00452							
P00405	960	00204							
P00407	965	00417							
P00414	970	00412	00430						
P00429	975	00417	00413						
P00431	980	00427							
P00436	985	00413							
P00447	990	00132	00437						
P00448	991								
P00453	975	00452							
P00462	999	00364							
P00533	-ERASER	00161	00250	00327					
P00004	..100000	00013							

5.ATS CAGPLAN

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EO

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P00532	INSTIFF.	00101	00103	00162	00163	00251	00253	00330	00331			
P00547	JADD	00037	00036	00112	00127	00206	00212	00262	00265	00272	00302	
C00703	JAFY	00033	00033	00207	00207	00373	00373	00432	00432	00443	00443	00456
P00550	JAT	00422	00425	00431	00433							
P00551	JDEL	00136	00137	00146	00201	00307	00318	00312	00346	00357		
C00300	JOO	00031	00031	00041	00041	00135	00135	00141	00142	00205	00205	00306
P00552	JWASH	00306	00367	00367	00371	00371	00403	00403	00454	00454		
C00023	JOUTSRT	00402	00425	00444								
C00024	JPAVLOAD											
C00022	JREFUEL											
P00553	JX	00056	00061	00226	00231							
P00554	K1	00372	00416	00451	00453							
P00555	K2	00374	00455									
P00556	K3	00376	00457									
C00036	LASTPAY	00123	00124	00175	00176	00270	00271	00344	00344	00345	00412	00440
C00037	LASTTGT	00124	00125	00177	00200	00277	00300	00354	00355	00411		
C00124	LXMITMT	00440	00034	00037	00037	00061	00062	00103	00104	00127	00130	00137
C00156	LOSTTGT	00140	00104	00104	00202	00202	00210	00210	00213	00213	00231	00232
C00000	MAPPT	00253	00254	00302	00303	00310	00311	00332	00332	00360	00360	
C00001	MYCTGT											
C00005	NALICOLY											
C00211	NASWS											
C00072	NAVAL											
C00003	NAVIT	00064	00067	00072	00072	00120	00121	00150	00151	00153	00153	00236
C00207	NCOSTTGT	00237	00243	00243	00246	00267	00310	00315	00317	00320		
C00015	NEPSITE											
C00040	NE-IT	00045	00045	00046	00050	00053	00133	00133	00134	00146	00147	00200
C00010	NEPERSON	00215	00215	00216	00224	00224	00304	00304	00305	00313	00313	00356
P00557	NORMAL	00356										
C00002	NAMES-	00023	00131	00203	00377							
C00001	NAMES-	00116	00117	00172	00172	00173						
C00000	NOMIN	00276	00277	00353	00354	00356	00436					
C00000	NOMIT	00121	00122	00174	00175	00274	00274					
C00218	NOMOS											
C00005	OYA											
C00007	OIS											
P00514	REFUGED	00511										
X00002	PRINTIT	00017	00341	00460	00472							
X00001	PROCTIC	C0000	00006									
C00001	RANGE											
C00034	RANGESEC											
C00014	RANGEFF											
C01370	R-0J											
C00217	RUGASH	00424	00427									
C01475	S											
C00033	SPOASH											
C00033	SPOASH											

5.4TS

CMGPLAN

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C00012	SPOL0	
C00003	SPFEN	
C01523	SURY	
P00265	IS00001.	00052
P00112	IS00002.	00070
P00172	IS00003.	00155
P00235	IS00004.	00222
P00262	IS00005.	00240
P00337	IS00006.	00321
C01275	Y	
C01244	VALA	
C01213	VALB	
C01554	VALGME	
C01605	VALON	
P00055	MS00001.	00064
P00072	MS00002.	00111
P00157	MS00003.	00171
P00225	MS00004.	00234
P00242	MS00005.	00261
P00324	MS00006.	00336
00246	SYMBOLS	

```

SUBROUTINE CORRPARM(KORD,TLAT,TLONG,IST,IFN)
  CSURR      CORRPARM 1F871
  CUSE       PRINTPT 9/10/69
  COMMON/PRINTOPT/ISRTYGT,ICUMSHV,ICURHAI,ICUMCPM,IFVAL,
1  IRAIDSH,ICMPLAN,IIINITOP,IIINFAL,ITGLASH,
2  IGRPTYPE,ICRDATA,ICORCAR,ISIRKSUM,ICOMWSHR,
3  ICORIOCM,INEXTLT,IDERUG,INEFUEL,MUTISAT,JPAYLOD
  CEND       PRINTOPT *****
  COMMON/2/PHI(1100),RMC(1100)
  COMMON/1/X(1100),Y(1100)
  DIMENSION TLAT(1),TLONG(1)
  CORRINDOR 9/10/69 *****
  COMMON/CORRINDOR/CLAT,CLONG,CZONE,PLAT,PR,RELAT,ELDA,LENGTH,
1  CORPR,COMATT,CORSAITP,ATRMILC,FM,MP,HEFF,
2  DISTOFF(3),PREATTB(3)
  TYPE INTEGER CZONE
  TYPE REAL KORDPR
  CORRINDOR *****
  FOR/VALENCE (D,HNGREF),(M,KGRPHR)
  CUSE       DERUG 9/10/69 *****
  COMMON/DERUG/IOIA,ICAMFRC(20)
  CEND       DERUG *****
  CUSE       PCALL 9/10/69 *****
  COMMON/PCALL/TPASS,ICALL
  CEND       PCALL *****
  IOIA=IOIA+1
  ICAMFRC(101)=BMCORRPARM
  ICALL=10
  CALL PRINTIT(IDERUG)
  SMPLSTF(PLAT,PLONG,CLAT,CLONG)
  CLCOSF(PLAT,0)74532925)
  FM=3600./120000
  C          DO 40 I = 1ST,IFN
  C
  A=PLAT-TLAT(I)
  R=PLAT-CLAT
  C = (DELLONG(PLONG,TLONG(I)))*CL
  D = (DELLONG(PLONG,CLONG))*CL
  X(I)=R*(A*D-B*C)
  Y(I)=R*(A*B+C*D)
  IF (Y(I).LT.0.0) 30,10
  10 PH(I)=X(I)/(A+SF(Y(I)))**0.66
  R2 = Y(I)*Y(I)
  IF (ABSF(PH(I)),GT.1.) 30,40
  30 PCN=1.0/RN
  IF (X(I).LT.0.) 32,31
  31 SX=1.
  GO TO 33
  32 SX=-1.
  33 AR=AR+SF(X(I))
  Y0=AR**REC
  PH(I) = (1.8*Y0-Y(I))*SX
  R2 = Y0*Y0
  40 PHO(I) = R2*(X(I)*X(I))**0.66
  IOIA=IOIA+1

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FTNS.S

END

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4600C

2100

5-ATS CORPPARM

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PROGRA. AGTH
ENTRY PUNTS
BLOCK NAMES

CORPPARM

PRINTOPT

2

3

CORRIDOR

DEBUG

PCALL

EXTERNAL SYMBOLS

Q2087110

Q1805100

Q2087111

Q1804100

6000ICT.

PRINTIT

DISTF

DELLANG

COSF

IDENT

CORPPARM

00264

00004

00025

04230

34230

00024

00025

00002

5.475 CORRIGE

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P00250 A	00051	00066	00073
C00013 ATTACH	00141	00144	
P00251 AX	00054	00067	00073
P00252 B	00224	00232	00236
P00167 RESIN.	00061	00070	00074
P00253 C	00033	00061	00065
P00254 CL	00024	00053	
C00000 CL-T	00024	00064	
C00007 CLENGTH	00004		
C00001 CLONG	00004		
C00011 CCHATTN	00031		
P00004 C0PPARM	00045		
C00012 C0PSATP	00065	00066	00075
P00255 C0UNT.	00054	00042	
C00002 C2ONE	00004	00017	00022
P00256 D	00004	00017	00022
X00010 DELLONG	00004	00017	00022
P00001 DICT.	00004	00017	00022
C00014 D1STOFF	00021		
X00007 D1STF	00007	00164	00167
C00005 ELAY	00230	00170	00171
C00004 ELONG	00037	00071	00074
P00225 ENONG.	00012		
P00000 EAT.	00214	00215	
P00257 F	00222	00223	
P00003 F0RMAY.	00216	00217	
P00040 F00001.	00223	00224	
P00042 F00002.	00207		
P00043 F00003.	00210	00211	
P00050 F00004.	00174	00201	00212
P00054 F00005.	00177	00205	00220
P00060 F00006.	00041	00045	
P00241 G0TFL.	00016	00019	
P00231 G0TFL.	00014		
P00260 I	00014		
C00001 ICALL	00014		
C00001 ICAMPROM			
C00004 ICMBLAP			
C00014 ICRCCLP			
C00017 IC00T000			
C00014 IC00R000			
C00002 IC00R010			
C00001 IC00R010			
C00021 I00000			
C00004 I00000			
P00003 I00000			
C00013 I00000			
C00012 I00000			
C00010 I00000			
C00007 I00000			
C00020 I00000			
P00167 I00000			
C00000 I00000			


```

      DRECov = FISTF(PLAT,PLONG,DP,AT(JDPN),DPLONG(JDPN))
      50 TO 78
      78 DRECov = 20000.
      78 D(IGTIG,IRECOVER) = DRECov
      C
      8 IF(IJ-JJ)10,15,15
      10 DSTM(IJ,JJ)
      15 IF(DST) 20, 20, 20
      15 DSTM(IJ,JJ,1)
      20 IF(DST) 40, 20, 20
      20 DIFF = DST
      30 TO 60
      30 I=11
      40 I=JJ
      50 I=MYPROTGT(I)
      50 I=MYPROTGT(J)
      50 DIFF=DISTF(PLAT(IY),PLONG(IY),PLAT(JY),PLONG(JY))
      60 CONTINUE
      60 IOTA=IOTA-1
      60 RETURN
      END
      18600
      18700
      18800
      18900
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      39900
      40000

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5.4TS

DIFF

PROGRAM LENGTH
ENTRY PRINTS
BLOCK NAMES

DIFF

IDENT

DIFF

00350
00904

PPI-TOPT

3

SOMTYTGT

STRKSUP

DEHIC

PCALL

INDEX

CUMSCPT

CORRIDOR

DPENREF

00025
40167
01751
00041
00025
00032
00007
00214
00024
00276

EXTERNAL SYMBOLS

0800ICT.

015TF

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C01357	ATLOCHT						
C00013	ATRMIL0						
C17027	ATRL0C						
P00250	REGIN.	00315	00324	00330			
C00000	CLAT						
C00007	CLENGTH						
C00001	CLONG						
C33737	CNTXLOC						
C00011	CORATTR						
C00012	CORSGATT						
C00002	CZONE						
C00032	0	00064	00067	00075	00075	00102	00145 00145
C23257	DELAT						
C25373	DELONG						
C27507	DESIG						
P00001	UIC1.						
P00004	DIFF	00004	00057	00141	00254	00255	
C00016	DISIDEF						
X00002	DISTIF	00054	00140				
C01410	DISTLEG						
C01441	DISTLOW						
C12577	DISTOUT						
C14711	DISTREC						
C00062	DPLAT	00054	00061				
C00000	DPLINK						
C00144	DPLONG	00055	00061				
C01720	DREC						
P00342	DRECONV	00062	00064	00065			
P00343	DST	00076	00103	00105			
C00213	DSTP						
CG.667	DVALA						
C01636	DVALR						
C00005	ELAT						
C00004	ELONG						
P00316	ENDING.	00067	00150	00251	00252	00253	00253
P00000	EXIT.	00322					
C36053	FLAG						
P00002	FCMAT.	00012					
P00014	FP00001.	00275	00274				
P00017	FP00002.	00313	00314				
P00025	FP00003.	00205	00244				
P00030	FP00004.	00303	00304				
P00070	FP00005.	00267	00270				
P00071	FP00006.	00305	00304				
P00107	FP00007.	00271	00272				
P00112	FP00010.	00337	00310				
P00114	FP00011.	00311	00312				
P00121	FP00012.	00273	00274				
P00207	FP00013.	00301	00302				
P00221	FP00014.	00263	00264				
P00333	GETPL.	00256	00277				
P00323	GETSU.	00261	00327				
P00344	I	00110	00117	00120	00233		
C00073	I-MAIL						

5.ATS

DIFF

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C00001	ICALL								
C00001	ICAFROM								
C00006	ICMGPLAN								
C00014	ICORCAW								
C00017	ICORINOH								
C00005	ICORR								
C00016	ICORSHR								
C00007	ICURWAP								
C00001	ICUSMTY								
C00021	IDFMUG								
C00003	ILZICH								
C10463	IMPEN	00051	00052						
C00004	IEVAL								
C03004	IFLY								
C00013	IGRDATA								
C00012	IGRPTYPE								
C00021	IMTY								
P00003	II	00042	00025	00070	00107	00121	00221		
C00010	IINDEX	00015							
C00007	INITCPT								
P00152	IN00004	00064	00173	00203					
P00153	IN00005	00074	00215	00225					
P00154	IN00006	00101	00213	00227					
P00155	IN00013	00144	00235	00246					
C00003	INDEFNO								
C00020	INEXFLT								
P00251	INITIAL	00007							
C00041	ICWIT								
C00001	ICWIG	00015	00014	00031	00031	00177	00177		
C00002	ICYA	00010	00010	00011	00013	00013	00146	00146	00147
C00000	IPASS								
C00005	IRADSHQ								
C00002	IRECOVER								
C00003	IRSTACPM								
C00000	ISORTY								
C00000	ISWLYGT								
C00015	ISTRKSUM								
C00004	IT	00124	00124	00132	00132				
C00011	ITGTASGN								
C00155	ITPLN								
P00074	.10	00072	00073						
P00101	.15	00072	00073						
P00105	.20	00077	00100	00104					
P00107	.30	00077							
P00025	.4	00024							
P00114	.40	00104							
P00124	.50	00115							
P00036	.6	00023	00034						
P00146	.60	00104							
P00041	.72								
P00053	.75	00037	00040						
P00065	.78	00062							
P00070	.8	00034	00035						
P00336	.ERASEM	00017	00022	00024	00023	00027	00032	00033	00044

P00003	..100000	00012	00044	00050	00061
P00334	NSYIFF.	00045			
P00060	.700001.	00054	00055		
P00142	.700002.	00134	00135	00136	00137
P00345	J	00113	00122	00127	00242
C00002	JCONP				
P00346	JCPN	00053			
C00001	JGRCUP				
P00003	JJ	00020	00030	00071	00112
C00023	JOUTSQT				
C00024	JPAYLOAD				
C00022	JWEFUFL				
P00347	JT	00131	00135		
C00006	JTGTIN				
C00000	KGROUP				
C00010	KOMPR				
C00036	LASTPAY	00030	00036		
C00037	LASTTGT	00041	00041		
C00124	LKHIPT				
C00156	LOSTTGT				
C00000	MAXPT				
C00001	MYPTGT	00044	00047	00125	00125
C00211	NASMS				
C00072	NAVAIL				
C00002	NCORR				
C00003	NWIT				
C00207	ALOSTTGT				
C00040	QOMIT				
C00015	NPREFEF				
C00003	NSTRK				
C00000	NT				
C00001	NTSTRK				
C00002	NUMASH				
C00001	NUMHOMB				
C00000	NUMMIT				
C00210	NMMOS				
P00277	PF00002.	00262			
P00315	PF00003.	00300			
C00003	PLAY	00060			
C00004	PLONG	00060			
C00021	PREATTR				
X00001	QB00ICT.	00000	00005		
C00226	REFLAT				
C00252	REFLONG				
P00162	RELCON..	00250			
C01326	RHOJ				
C00212	RMGISM				
C00014	RNGOEF				
C21143	RVAL				
C01472	S				
C01523	SURV				
C31623	TASK				
C00347	TIMEPEM				
C02117	TLAT	00133	00136	00142	00143

5.ATS	DIFF	12/10/71	ED	0	PAGE NO.	7
C01233	TLONG	00134	00137	00142	00143	
P00165	UP00003-	00156	00167	00170	00171	00174
P00176	UP00004-	00157	00200	00201	00202	00204
P00206	UP00005-	00160	00210	00211	00212	00216
P00220	UP00006-	00161	00220	00221	00222	00227
P00232	UP00007-	00161	00220	00221	00224	00230
P00241	UP00010-	00111	00120	00233	00234	00237
C01275	V	00114	00123	00242	00243	00246
C01244	VALA					00247
C01213	VALR					
C11554	VALDOME					
C11605	VALON					
P00151	VALUE-	00106	00144	00321		
00257	SYMBOLS					

2111

FTW5.5

```

      LKHI7MT(13)=-12
30  IOMIT(12)=13
36  CONTINUE
      ICALL=72
      CALL PRINTIT(ICURSETY)
      ICALL=73
      CALL PRINTIT(ICURRAID)
      IOTA = IOTA - 1
      RETURN
      END

```

12/18/71

PAGE NO. 2

32000
43000
44000
45000
46000
47000
48000
49500
49800
50000

5.4TS DUMPSRT

12/10/71

ED 0

PAGE NO.

3

IDENT DUMPSRT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00170
00004

DUMPSRT

PRINTOPT

00025

INDEX

00007

CUNNAIO

04540

SORTYGT

01751

CURSCMTV

00214

DEMOG

00025

PCALL

00002

EXTERNAL SYMBOLS

ORJOICT.

PRINTII

C01357	ATLOCHI						
P00151	HEGIN.						
C00160	CGUAT.						
C00032	0						
P00001	DICT.						
C01410	DISYLEG						
C01441	DISILCM						
C01720	DREC						
C00213	OSTH						
P00004	DUMPSRT						
C01667	DVALA						
C01636	DVALR						
P00154	ENGIN.						
P00000	EXIT.						
P00003	FORMAT.						
P00161	I1						
P00162	I2						
P00163	I3						
C00073	I1AVIL						
C00001	ICALL						
C00001	ICAMFROM						
C00006	ICMGPLAN						
C00014	ICORCAR						
C00017	ICCRIDOP						
C00005	ICOR2						
C00016	ICORSMR						
C00002	ICURM4IN						
C00001	ICURSRTY						
C00021	IOEQU6						
C00003	IDITCH						
C00004	IEVAL						
C00004	IFLY						
C00013	IGRPDATA						
C00012	IGRPTYPE						
C00021	IMIT						
C00010	IINDEX						
C00007	INITOPT						
P00131	IN00003-						
C00374	INDEXVEM						
C00020	INEXFLT						
P00151	INITIAL.						
C00041	IOMIT						
C00001	IORIG						
C00000	IOYA						
C00000	IPASS						
C00005	IPADSMA						
C00002	IPECOVER						
C00003	IRSTKCPM						
C00000	ISORTY						
P00164	ISRT						
C00003	ISRTY7BT						
P00165	ISTRK						
C00015	ISTRKSJM						
C00004	IT						
P00153							
C0027							
C0006							
C0004							
C0007							
C0005							
C0010							
C0002							
C0001							
C0003							
C0005							
C0015							
C0014							
C0025							
C0021							
C0020							
C0003							
C0015							
C0014							
C0034							
C0041							
C0007							
C0005							
C0010							
C0072							
C0021							
C0022							
C0032							
C0030							
C0045							
C0040							
C0012							
C0010							
C0011							
C0013							
C00126							
C00126							
C00127							

C00011 ITGTASGN
 C00155 ITGLD
 P00055 .10
 P00070 .20
 P00111 .30
 P00115 .40
 P00045 .5
 P00050 .6
 P00003 .100000
 P00166 J
 C00023 JOUTSPT
 C00024 JPAYLOAD
 C00022 JREFUEL
 C00310 JTGT
 C00006 JTGTIN
 P00167 K
 C00036 LASTPAY
 C00037 LASTTGT
 C00124 LKHTMT
 C00156 LOSTTGT
 C00000 MAXPT
 C02260 MYASGN
 C00009 MYBASF
 C00001 MYPTGT
 C00144 NASEN
 C00211 NASMS
 C00072 NAVAIL
 C00003 NHIT
 C00207 NOSTTGT
 C00040 NCMIT
 C00002 NCMASH
 C00001 NCMBSM
 C00000 NCMHIT
 C00210 NCMDS
 X00002 PRINTIT
 X00001 QSCCICIT
 C01326 R-0J
 C00212 RKGASH
 C01472 S
 C01523 SURV
 P00062 TSC0001
 P00115 TSC0002
 P00133 UP00002
 P00143 UP00003
 C01275 V
 C01244 VALA
 C01213 VALR
 C01554 VALDOME
 C01605 VALON
 P00031 W500001
 P00105 W500002
 C0151 SYMBOLS

00067

00044

00012

00036

00037

00053

00055

00042

00046

00047

00075

00100

00066

00025

00062

00042

00066

00053

00054

00073

00074

00110

00037

00040

00064

00065

00071

00071

00072

00050

00051

00056

00056

00075

00076

00077

00101

00101

00016

00117

00122

00000

00005

00026

00103

00023

00033

00134

00135

00136

00140

00141

00143

00145

00146

00150

SUBROUTINE EVAL		
CSUB	EVAL	31/01/71
CUSE	C-REF	9/10/69
	COMMON/PRINT/ATLFGH,ATLFGHMSURP,DISTANCE,MSVLON,AVAILON,	
	1 VALIT,ESTAT,VALIOT,PMAT,PMATVAL,VALONT,	
	2 CUMVAL,CETIAT,ADDOLO,JUMON,DISTSVATAHEAATLOCAL,	
	3 VALO,JRZ,DISTAD,ADOTEST,ATTNED,ATNEWLC,DVALG,JXL,	
	4 DIST1,DIST2	
CEND	PRINT	
CUSE	PRINTST	9/10/69
	COMMON/PRINTST/ISHTGT,ICURSRY,ICLRAID,ISHTCPM,IEVAL,	
	1 IPATSON,ICORPLA,TINIDOT,INDEX,ITGASO,	
	2 ICORPTE,ICORPDA,ICORCAP,ISIRKSUM,ICORSHR,	
	3 ICORTRK,INEXTEL,ITERUG,JREFUL,JUTISPT,PAYLOD,	
CEND	PRINTGT	
CUSE	EVAL	9/10/69
	COMMON/EVAL/MINR,JOELR,MARDA,JADR,MINDR,JOEL,MXOB,JANDR,MARDA,	
	1 JACDA,VALSORTY,JAF,WALC,VALUIST,VALP,ATJUSE,ERR,ISFINPLN	
	TYPE REAL MINR,MARDA,MICLA,MXOB,MARDA	
CEND	EVAL	
CUSE	GRTYPE	IFB71
	COMMON/GRTYPE/ISTMTYPE,RANGE,CPI,SPEED,ALERTOLY,ANALTYL,RANGEDEC	
	1 ICLASS,NUMPERSON,SPHMI,SPULO,SPDASH,MANGREF,NMPSITE,INED	
	2 IFECHODE,IFEMORE,FUNCTION	
	TYPE INTEGER FUNCTION	
CEND	TYPE REAL MULTPLY	
CUSE	GRTYPE	
	CORRTRK	9/10/69
	COMMON/CORRTRK/CLAT,CLONG,CZONE,PLAT,PLONG,CLAT,CLONG,CLNGTH,	
	1 KOPPE,CORTRAT,CORSTAT,ATTNLO,NGREF,APPEDEF,	
	2 DISDEF(3),PEATT(3)	
CEND	TYPE INTEGER CZONE	
CUSE	TYPE REAL KOPPE	
CEND	CORRTRK	
	DIMENSION DUM(10)	
CUSE	FOI/VALENCE (DUM,CLAT)	
	CHGPLN	9/10/69
	COMMON/CHGPLN/JDR,IAH,ISCAN,JAF,ATD,OTA,NIC,OTB	
CEND	TYPE INTEGER ATD,OTA,OTB	
CUSE	CHGPLN	
	INDEX	9/10/69
	COMMON/INDEX/ISORTY,ICWIG,IMECOVEH,ITICH,ITICORR,ITGTIN	
CEND	INDEX	
CUSE	CURSRTY	9/10/69
	COMMON/CURSRTY/ALWIT,NUMPDR,KUMASH,NMII,IELY(13),IMT(13)	
	1 LASTPAY,LASTGT,KUMIT,ICWIT(25),MAVAL,IAVAL(25),	
	2 LK-ITGT(25),ITOLU,LOSTGT(25),MLOSTGT,NUMOSINASH,ANGASH	
	3 DSTR	
CEND	CURSRTY	
CUSE	SORTYGT	9/10/69
	COMMON/SORTYGT/XAPT,YPOTGT(25),D(25,25),VALR(25),VALA(25),	
	1 V(25),PMOJ(25),ATLCC(25),DISTLOW(25),DISTLOW(25),S(25),	
	2 SURV(25),VALDNE(25),VALON(25),DVALR(25),DVALA(25),DREC(25)	
CEND	SORTYGT	
CUSE	FIXALL	2/01/71
	COMMON/FIXALL/JFIX(1100),JFIXR(1100),JFIX(25)	

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

EVALR	INPAT	EVALR
0073A		
0060A		
00034		
00029		
00021		
00022		
00024		
00010		
00007		
00014		
01751		
00107		
00024		
00002		

EXTERNAL SYMBOLS

PRNTE	ORQSTOPS
PRNTOPT	CYORQSTOPS
EVAL	ORQSTOPS
GPRTYPE	PRIETY
CORRIDOR	DIFF
CHSPILAN	PRNTE
INDEX	MAXIF
CURSORIV	EXPE
SORTVIST	
FIXALL	
DEBAG	
PCALL	

SATS	EVAL	12/10/71	ED	0	PAGE NO.	11
CO1015	VALUET	00300				
CO1554	VALUET	00267				
CO0016	VALUET	00277				
CO0022	VALUET	00662				
CO1505	VALUET	00310				
CO0012	VALUET	00272				
CO0010	VALUET	00453				
DT735	VALUET	00420				
00410	SYNOPSIS					
		00321	00373	00373	00652	00653
		00320	00353	00373	00652	00653
		00462				
		00524				
		00525				

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91 CONTINUE
JANUARY
CER PRINTING (VAD)
JANUARY 1971
RECORD
END

12/10/71

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A2000
A3000
A4000
A5000
A6000
A7000
A8000

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SATS EVALCA

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IDENT EVALCA

00502
00004
00034
00025
00107
00107
00107
00107
00214
00022
00021
00007
00010
00025
00002

EXTERNAL SYMBOLS

0300000
0000000
0000000
0000000
0000000
0000000

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2

ED

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5.ATS EVALOA

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CO0001	ICAFROM	00014			
CO0004	ICMPLA				
CO0007	ICLASS				
CO0014	ICORCAM				
CO0017	ICORINOR				
CO0005	ICORP				
CO0016	ICORPSMR				
CO0002	ICURRAIN				
CO0001	ICURSRIV				
CO0021	IDERUG	00020			
CO0003	IDITCH				
CO0004	IEVAL	00251			
CO0004	IEVAL	00043	00134	00134	
CO0013	IGPDATA				
CO0012	IGPDTYPE				
CO0021	IMIT	00036	00041	00041	00227 00227
PO0272	II	00173	00175	00210	
CO0010	IINDFX				
CO0007	IICTOPT				
PO0273	II	00209	00201		
CO0000	IJFIX				
CO0043	IJFIR				
PO0274	IK	00204			
CO0104	IKFIX	00072			
PO0275	IN	00172	00204		
CO0003	INDEXNO	00171	00204	00205	
CO0020	INFATELT				
PO0255	INITIAL	00007	00121		
CO0041	ICWIT	00121	00130		
CO0001	ICWIG	00130	00130		
CO0000	ICOTA	00010	00010		
CO0000	IPASS				
CO0020	IPENMODE				
CO0005	IRAINSMR				
CO0017	IRECMODE				
CO0002	IRFCOVCH				
CO0016	IPEP	00125	00123		
CO0003	ISSTICPM				
CO0002	ISCAN				
CO0020	ISFINPLN				
CO0000	ISIMTYPE				
CO0000	ISORTY				
CO0000	ISMTYGT				
CO0015	ISYASUM				
CO0004	IT				
CO0011	ITGASGN				
CO0155	ITOLN				
PO0341	.10	00045			
PO0047	.15				
PO0364	.14				
PO0070	.14				
PO0074	.20				
PO0111	.30	00037	00040	00047	00047 00073

[illegible]

5.ATS

EVAL01

P00301 -W

00330 SYMBOLS

00063

00110

00241

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ED

C

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2135

2136

[illegible]

2138

[illegible]

FYMS-5

12/10/71

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```
IF (IFLY(IF1),F3,IFLY(IF2)) 363,400
363 JAF=XARSP(IMIT(IF2)) 5 GO TO 362
400 CONTINUE
ICALL=67
CALL PRINTIT(IFVAL)
IOTA=IOTA-1
RETURN
END
```

130000
131000
132000
133000
134000
135000
136000
137000

SATS EVALOR

12/10/71

ED

0

PAGE NO.

5

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

EVALOR

PRINTF
3
SORTYET
CURSORTY
EVAL
CORRIDOR
VAL
INDEX
DEHUG
PCALL

EXTERNAL SYMBOLS

ORGOICT.
PRINTIT
DIFF
PRINTF
EXPF

IDENT EVALOR

00641
00012
00034
00025
40167
01751
00214
00021
00024
00003
00007
00025
00002

SATS	EVALOR	12/10/71	ED	C	PAGE NO.	6
C00015	ADOLE-					
C00025	ADRIEST	00176	00177	00207	00210	00223
C00020	ATAMEA					
C00001	ATLEG					
C00000	ATLEGMI					
C00021	ATLOCAL					
C01357	ATLOCM	00355	00355	00361	00361	00377
C00027	ATMEIG	00350	00362	00375	00375	00377
C00013	ATTAKILO	00374	00374	00376	00377	
C17027	ATTALOC					
C00026	ATTAREW	00056	00057	00057	00346	00356
		00401				
C00005	AVAILOR					
P00607	REGIN.	00611				
C00000	CLAT					
C00007	CLENGTH					
C00001	CLONG					
C33737	CNTHYLOC					
C00011	CORATH	00055	00056	00344	00344	00346
C00012	CORSAITH					
C00014	CRIATAT					
C00013	CURVAL					
C00002	CZONE					
C00032	D	00045	00046	00054	00055	
C23257	DELAT					
C25373	DELONG					
C27507	DESIG					
P00031	DICT.					
A00003	DIFA	00014	00025	00062	00121	00125
C00037	DIST1	00311	00404	00431	00440	00454
		00120	00124	00170	00250	
		00123	00127	00174	00174	00225
		00360	00363	00363		
C00033	DIST2	00127	00130	00226	00254	00254
C00024	DISTAD	00051	00051	00053	00053	00070
		00274	00334	00334	00345	00345
C00003	DISTANCF					
C00016	DISTDEF					
P00022	DISTEST	00173	00224	00253	00323	
C01410	DISTLEG	00131	00131	00175	00176	
C01441	DISTLOW	00367	00367			
C12577	DISTOUT					
C14713	DISTREC					
C00017	DISTSV					
C01720	DREC	00050	00050			
C00213	DSTR					
C00000	DUM					
C01667	DVALA					
C01636	DVALH					
C00030	DVALO	00067	00067	00340	00341	00433
C00005	ELAT	00522				
C00006	ELONG	00054	00066	00066	00414	00415
P00012	ENCLG.					
P00012	EVALOR	00015	00540	00610	00611	

S.ATE EVALOR

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ED C

12/10/71

C00023 JOUTSRT
C00024 JPAYLOAR
C00022 JEFFUEL
C00017 JSEOFOP
C00006 JTGILN
P00034 JX

C00031 JX1

C00023 JX2

P00035 JXTFST
P00036 JZ

C00014 KALC

C00010 KOMPUR
C00016 LASTDAY
C00037 LASTGT
C00124 LKMTMT
C00156 LOSTGT
C00002 MADA

C00010 MAXLAR

C00006 MAXOP

C00000 MAXPT

C00000 MING

C00004 MINDA

C00001 MUSTREC

C00001 MYOTGT

C00211 NAKMS

C00072 NAVAIL

C00003 NHIT

C00207 MLOSTGT

C00000 NOMIT

C00015 NOREDEF

C00000 NT

C00002 NUMASH

C00001 NUMBOM

C00020 NUMMIT

C00210 NUMOS

C00003 PLAT

C00004 PLOMG

C00011 PKATRATE

C00021 PREATTR

X00002 PRINTIT

X00004 PMMTF

X00001 X00010

P00544 RELCOM..

C01326 RWOJ

P00037 RMOR

C00212 RMGASH

C00014 RMGDEF

C00002 RMG500P

00034	00073	00122	00126	00141	00145	00147	00172	00245	00234	00252
00264	00312	00340	00354	00364	00422	00441	00455	00457	00463	00472
00521	00524	00547	00547	00547	00547	00547	00547	00547	00547	00547
00165	00164	00175	00221	00221	00276	00325	00424	00424	00424	00443
00524	00524	00600	00600	00600	00600	00600	00600	00600	00600	00600
01103	00104	00104	00124	00130	00216	00216	00245	00246	00275	00322
00302	00324	00331	00331	00346	00346	00370	00370	00370	00370	00370
00165	00172	00245	00252	00255	00301	00315	00315	00315	00315	00315
00504	00504									
00041	00041	00112	00112	00446	00446					
00417	00417									
00531	00531									
00031	00031	00461	00441	00523	00523					
00473	00473	00500	00507							
00343	00416									
00544	00546									
00342	00342	00415	00414							
00024	00552	00232	00264	00310	00453					
00137	00203									
00800	00813	00807	00807	00807	00807	00807	00807	00807	00807	00807
00074	00074	00105	00105	00143	00144	00145	00146	00147	00150	00151
00152	00316	00316	00316							
00075	00106	00317								
00071	00315									

SATS	EVALOR	12/10/71	ED	P	PAGE NO.	1
C00004	MSVLQW					
C21143	MVAL					
C01472	S					
C01523	SUPV	00065	00425	00426	00443	00444
C31623	TASK					
C06347	TIMEPHEW					
C02117	TLAT					
CC4233	TLOGG					
P00546	TS00001.					
P00112	TS00002.					
P00517	TS00003.					
P00567	UP00003.					
P00577	UP00004.					
C01275	V	00571	00572	00573	00575	00576
C00806	VALLT	00117	00222	00277	00324	00443
C01244	VALLA					
C01213	VALLH	00423	00441	00442		
C00015	VALLTST	00052	00411	00412		
C01554	VALLDME					
C00016	VALLMAX					
C00022	VALLQ					
C01805	VALLQW	00407	00407			
C00012	VALLQMT					
C00000	VALLRECVR	00063	00063			
C00012	VALLSORTY	00064	00064			
C00010	VALLTOT					
C00002	VALLLOAD					
P00034	WS00001.	00547	00547			
P00100	WS00002.	00113	00113			
P00502	WS00003.	00520	00520			
P00440	WS	00143	00207			
	00351 SYMBOLS	00230	00270	00314	00457	

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12/10/71

```

2  DISTDEF(31),PREATTR(3)
   TYPE INTEGER CZONE
   TYPE REAL KORPMH
   CORRINH 9/10/69
   RATIOSSH 9/10/69
   COMMON/RAIOSH/ANEM(200),DISTB(200),WB,VORBASE,
     $NAPV(200),NAPC,IGTS,MNO,NASMPV(200)
   TYPE INTEGER VORBASE
   RATIOSSH 9/10/69
   GRPTYPE IFERT:
   COMMON/GRPTYPE/ISTYPE,RANGE,CEP,SPEED,ALERTLY,ALERTDLY,RANGEDEC
1  *ICLASS=NOPERSON,SPRHL,SPHLO,SPDASH,RANGREF,POSITE,INER
2  *IRECODE,IPENCODE,FUNCTON
   TYPE INTEGER FUNCTION
   TYPE REAL MALRTDLY
   GRPTYPE
   INDEX 9/10/69
   COMMON/INDEX/ISORTY,IORIG,IRECOVER,IOICM,II,ICORR,JGITH
   INDEX 9/10/69
   EVAL 9/10/69
   COMMON/EVAL/MING,JNELK,MAXDA,JADD,MINDA,JCEI,MAXOR,JADD,MINDA
1  *JADDA,VALSORTY,JAF,KALC,VALDIST,VALMAX,JSEDER,YSIMPLN
   TYPE REAL MING,MAXDA,MINDA,MAXOR,MAXDAH
   EVAL 9/10/69
   DIMENSION IDEF(10)
   DENUG 9/10/69
   COMMON/DENUG/TOTA,ICAMFROM(20)
   DENUG
   PCALL 9/10/69
   COMMON/PCALL/TPASS,ICALL
   PCALL
   IOTA=IGTA+1
   ICAMFROM(TOTA)=RM FLTPAN
   ICALL=34
   CALL PRINTYIT(IREHUG)
   ICALL=35
   REPORTF(1-9,8)=EFORE 5,0,MFT=100
   FLTPAN ENTRY
1  DISTANCE AND VALON (MI ALT), WORKING BACK FROM RECOVERY T
   DISTANCE=0.0 <CURVAL=0,
   VALMAX=0.0
   IF INFLT=1
   IF INFLT=1
   IF INFLT=1
5  IF INFLT=1
   J=INIT(11)
   J=INIT(11)
   J=INIT(11)
   IF(JM,LT,0) 10,20
10  J=JM & V(J)=VALB(JM)+VALA(JM) & GO TO 25
20  V(JM)=VALP(JM)
25  VALMAX=VALMAX+(JM)
   VALMAX=UPPER LIMIT OF SOWTY VALUE
   IF(JY2,GO,JY) 30,40
30  DISTLEG(JM)=0.0 & S(JM-2)=1.0 & GO TO 40
40  DISTLEG(JM)=DIFF(JY,JY2)
   DISTANCE=DISTA+CEP+DISTLEG(JM2)

```

12/10/71

```

C      IF (J2.EQ.JPCEVED) 41.42
C      ADD RECOVERY DISTANCE TO DISTOUT TO DEPEND DIST
C      41 LEGREC=FLY/111
C      IF (LEGREC.EQ.1) 41.411
C      410 LEGREC = XARSF (INITI(1))
C      411 DRECOV = DREC (LEGREC)
C      DISTLEG (INITI)=DRECOV
C      DISTANCE=DISTANCE+DRECOV
C      42 IF (J2.EQ.JPCEVED) 43.44
C      43 ATLEG=ATLOC(J2)+DISTLEG(J2)+CGWATR & GO TO 47
C      CALC ATTN AT -1 ALT EXCEPT FOR LEG TO FIRST TGT
C      44 IONE=1.1 & J2=J2
C      ATLEG=ATLOC(J2)+ATLOC(J2)+CONSATTIONISTLEG(J2)
C      1 *DIFSUP=H2CEFO(1.0)+XPR (-DISTLEG(J2)/H2GJEF(1))
C      47 S(J2)=EXP (-ATLEG)
C      48 VALON(J2)=VALON(J2)+VALON(J2)+S(J2)
C      DISTLOW(J2)=0.0
C      ICALL=36
C      MAX PRNTF(11,J2,RNSETUP,J2)
C      49 IF (J2.EQ.JPCEVED) 5.55
C      55 IF (J2.EQ.JPCEVED) 5.55
C      54 DISTLEG (ICALL)=0. & SP. 40
C      60 DISTLEG (ICALL)=0. & SC TO 61
C      61 DISTLEG (ICALL)=0. & SC TO 61
C      61 DISTLOW (ICALL)=0.0
C      DISTANCE=DISTANCE+DISTLEG (ICALL)
C      ICALL=37
C      MAX PRNTF (-9,PRNTF SE,PRNT-UP )
C      PREPARE FOR NEXT LOOP
C      SUMVATION(1)=0.0/SUMONE)
C      CALC SURPLUS RANGE AT -1 ALT
C      PRG=J2+RANGE-DISTANCE
C      IF (PRG<0) 62.63
C      62 AVAILLOW=0 & ASVLOW=0 & GO TO 76
C      63 AVAILLOW=PRG/SURP/INANGDEC-1.0)
C      ICALL=38
C      MAX PRNTF (-2.0,PRG/RESV)
C      RESERVE LOW ALTITUDE RANGE PRIOR TO TGT1
C      RSVLOW=PRG/RESV+DISTLEG (J2)
C      AVAILLOW=AVAILLOW-RSVLOW
C      ICALL=39
C      MAX PRNTF (-2.0,RNSETUP(J2))
C      IF (AVAILLOW<0.0) 70.70
C      70 RSVLOW=RSVLOW+AVAILLOW
C      AVAILLOW=0.0
C      ICALL=40
C      MAX PRNTF (-2.0,RNSETUP(J2))
C      CALCULATE INITIAL ATTRACTION RATES
C      71 DO 79 L=1,3
C      72 FLYLOW(L)=0.0
C      80 L=1 & L=IMP(J2)
C      ATLOC=ATLOC+CGWATR VATION=CGWATR+ATLOC
C      80 PROCESS FORWARD FOR INTERIM VALU SURV AND ALLOCATE LOW ALT
C      90 I=1 & VALONE(TGT)=0.0 SURP=H2CEFO(1.0) SURP=H2CEFO(1.0)
C      IF (IONE=1) 120.95.100
C      95 VONTG=VALONE(J2)

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100 SURV(JM2)=SURV(JM1)*S(JM2)
    VALDOM(JM2)=VALDOM(JM1)*V(JM2)*SURV(JM2)
110 IF (JM2.NE.1) GOTO 115
115 CONTINUE
    ICALL=131
    W=PRINTF(-2.0,7MDEFFCIT)
    IF (RSVLOW.GT.1.0) 201,250
    CALC REVISED S(JM2) AND DISTLOW(JM2) THEN RETURN TO STATEMENT 100
120 IF (DISTLEG(JM2).EQ.0.0) 100,130
130 IF (AVAILLOW.EQ.0.0) 140,150
140 CONTINUE
    IF (RSVLOW.EQ.0.0) 100,200
150 IF (JM2.EQ.1) GOTO 140,155
155 IF (AVAILLOW.LT.DISTLEG(JM2)) 160,170
160 DISTLOW(JM2)=AVAILLOW SAVAILLOW=0.0
    ATLEG=DISTLEG(JM2)*CORATTR-DISTLOW(JM2)*ATDIFM1+ATLOCMI(JM2)
    ICALL=41
    W=PRINTF(-2.0,8MNAVAIL 2)
    S(JM2)=EXP(-ATLEG)
    GO TO 200
170 DISTLOW(JM2)=DISTLEG(JM2)
    AVAILLOW=AVAILLOW-DISTLOW(JM2)
175 ATLEG=ATLEG+MLO*(CORATTR-DISTLEG(JM2)*ATLOCMI(JM2))
180 S(JM2)=EXP(-ATLEG)
    ICALL=42
    W=PRINTF(11,JM2,7MLOCLEG)
    GO TO 100
C
    CALCULATE RELATIVE VALUES
200 RATELEG=CORATTR*ATLOC-I(JM2)/DISTLEG(JM2)
201 VALONT=VALOM(JM2)*SURV(JM1)*S(JM2)
    VALTOT=VALDOM(JM1)*VALONT
    VAL1=VALTOT-VOR16
205 CONTINUE
    ICALL=43
    W=PRINTF(-2.0,7MDECI0E1)
    ICALL=44
    W=PRINTF(-0.0,7MDECI0E2)
    IF (VALTOT*RATELEG.GT.VALONT*RATELEG) 210,250
210 IF (VALTOT*RATELEG.GT.VALONT*RATELEG) 210,250
C
    USE RESERVE IN PRECORRIDOR LEG
220 IF (W=DEF) 222,240
222 FLOW(L)=DISTDEF(L)
    RSVLOW=RSVLOW+FLOW(L)
    IF (RSVLOW.LT.0.0) 230, 240
230 FLOW(L)=FLOW(L)+RSVLOW
    ICALL=77
    CALL PRINTIT(1,INITOP1)
    DISTLOW(IORIG)=DISTLOW(IORIG)+FLOW(L)
    RSVLOW=0.0 5 CURVAL=VALTOT*RATELEG
    ICALL=45
    W=PRINTF(-3.0,8MRESERVE)
    GO TO (100,550) IF (WLT)
240 LL=LL+1
    DISTLOW(IORIG)=DISTLOW(IORIG)+FLOW(L)
    ICALL=46
    W=PRINTF(-3.0,8MSTILLRSV)

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C      MOVE TO NEXT PRECORR LEG
      IF (LL-ST-PRNDEF) 241,242
241 PRATRA=0.0 $ GO TO 205
242 L=IMPORTOILL) $ PRATRA=VALOINT(6) $ GO TO 205
250 IF (VALI)*STATR-6T-VALONT-MATELG) 260, 320
C      USE RESERVE IN CORRIDOR BEFORE FIRST YAMBL7
260 CRITATT=MAX(VALI*VALONT-MATELG,VALONT-MATELG)/VALI
      IF (CRITATT-LE-CORATT-0.1) 270, 200
270 ADDLOW=DISTLEG(JMONE)-DISTLOW(JMONE)
      IF (ADDLOW-7.0*RSVLOW) 280, 310
280 RSVLOW=RSVLOW-ADDLOW
      DISTLOW(JMONE)=DISTLEG(JMONE)
      FSTATR=0.0
      ICALL=7
      MM=PRATF(-5.4,8MTGTIDOME)
      GO TO 205
290 ADDLOW=RMGDEF*LOGE(DIFSUP/(CRITATT-CORATT))
      ADDLOW=MAX(ADDLOW,DISTLEG(JMONE)-DISTLOW(JMONE)
      IF (ADDLOW-LE-RSVLOW) 290, 310
290 RSVLOW=RSVLOW-ADDLOW
      DISTLOW(JMONE)=ADDLOW-DISTLOW(JMONE)
      ICALL=9
      MM=PRATF(-5.6,8MTGTIDOME)
      IF (DISTLOW(JMONE)-LE-DISTLEG(JMONE)) 305,300
300 FSTATR=CRITATT-0.99 $ GO TO 205
305 FSTATR=0.0 $ GO TO 205
310 DISTLOW(JMONE)=DISTLOW(JMONE)+RSVLOW
      RSVLOW=0.0 $ FSTATR=CORATT-EXP(-DISTLOW(JMONE)/RMGDEF)
      CURVAL=STATR-VALI
      ICALL=9
      MM=PRATF(-5.0,8MTGTIDOME)
      GO TO (100,50)IFINFLY
C      USE RESERVE ON LEG
320 ADDLOW=DISTLEG(JM2)-DISTLOW(JM2)
325 IF (ADDLOW-ALT-RSVLOW) 330, 340
330 DISTLOW(JM2)=DISTLEG(JM2)
      RSVLOW=RSVLOW-ADDLOW
      GO TO 175
340 DISTLOW(JM2)=DISTLOW(JM2)+RSVLOW
      CURVAL=VALONT-CORATT
      ATLEG=DISTLEG(JM2)+CORATT-DISTLOW(JM2)+ATLOCMI(JM2)
      GO TO 180
C      CALC ACTUAL S TO TGT 1(SOME)
350 CONTINUE
      ICALL=50
      MM=PRATF(-9.8,MLON ALT-RMALOCATED)
      T1=CORATT-DISTLEG(JM2)
      T2=CORATT-(ATTRILO-1.0)*DISTLOW(JMONE)
      T3=CURVAL-CORATT-0.99
      T4=TEMP(1.0-EXP(-DISTLEG(JMONE)/RMGDEF))
      T5=TEMP(ATTRILO-1.0)*(1.0-EXP(-DISTLOW(JMONE)/RMGDEF))
      IF (DISTLOW(JMONE)) 351,352
351 T5=ATLOCMI(JMONE)+ATTRILO
      GO TO 353
352 T5=ATLOCMI(JMONE)

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5021 JX=JX $ IF(JX=0,IFLY(1)) 505.501
Cooo GET NO. DEFENDED TGTS AFTER TGT1
503 IF(ATLOCMI(JX)) 504.505
504 WDEF=DEF+1 $ IOEF(INDEF)=1
505 IF(DISTLOW(JX)) 506.501
506 DISTLOW=STLOW 3 $ DISTLOW(JX)
Cooo DETERMINE LAST TGT PASSED AT LOW ALT
IF(DISTLOW(JX)=0,DISTLEG(JX)) 507.501
507 LASTLOW=1 $ GO TO 501
509 CONTINUE
510 IF(IOEF(INDEF)=0, LASTLOW) 515.400
Cooo RETRIEVE RESERVE FROM TGT1, RESET SURV FOR ALL LOW ALT TO TGT1
515 RSVLOW=DISTLOW(JHOME) $ DISTLOW(JHOME)=0 $ ADD2=ADD2+RSVLOW
ATLEG=ATTRAILLOW(ATLOCMI(JHOME)+CPSATTRAILSTILES(JHOME))
1 $ DIF(SUPARMGDEF(1)-EAPF(-DISTLEG(JHOME)/RNGDEF(1)))
SNEW=EXP(-ATLEG) $ IX=IXONE $ ASSIGN 520 TO LVRECALC $GO TO 600
Cooo RETRIEVE RESERVE FROM PRECORR LEGS
520 RSVLOW=RSVLOW+DISTLOW(TORIG) $ ADD1=ADD1+DISTLOW(TORIG)
DISTLOW(TORIG)=0.0
GO 521 L=1,3
521 FLYLOW(L)=0.0
SNEW=1.0/SNEW $IX=1 $ASSIGN 530 TO LVRECALC $GO TO 610
Cooo EXTEND LOW ALT TO NEXT DEFENDED TARGET
530 JOEF=1 $ OLDRSV=RSVLOW
532 JOEF=JOEF+1 $ IF(IDEF(JOEF).LE.LASTLOW) 532.533
533 I1=MAXOF(IONE,LASTLOW)
534 I1=I1+1 $ J2=XARSF(IMIT(I1))
535 RSVLOW=RSVLOW-DISTLEG(JM2)+DISTLOW(JM2)
DISTLOW(JM2)=DISTLEG(JM2)
ATLEG=ATTRAILLOW(ATLOCMI(JM2)+CPSATTRAILSTILES(JM2))
SNEW=EXP(-ATLEG)
IX=1 $ ASSIGN 536 TO LVRECALC $GO TO 600
536 IF(I1.LT.IDEF(JOEF)) 534.540
537 I1=I1+1 $ J2=IMIT(I1) $ IF(JM2.LT.0) 537.535
540 ADD2=ADD2+OLDRSV+RSVLOW $ LASTLOW=I1
Cooo UTILIZE RESERVE IF POS. RECLATN FROM LEGS IF NEG
IF(RSVLOW) 541.555.548
Cooo REMOVE REQUIRED LOW ALT FROM LATER LEGS
541 RECLOW=0.0 $ IX=IXONE
542 IF(RECLOW+RSVLOW.LT.0.0) 543.545
543 IMI=IMI+1 $ JMI=XARSF(IMIT(IMI)) $ IF(JMI=NE,IFLY(IMI)) 543.544
544 RECLOW=RECLOW+DISTLOW(JMI) $ DISTLOW(JMI)=0.0
545 IF(RECLOW+RSVLOW.LE.0.0) 545.544
ATLEG=CORATTN+DISTLEG(JMI)+ATLOCMI(JMI) $ SNEW=EXP(-ATLEG)
546 DISTLOW(JMI)=RECLOW+RSVLOW
ATLEG=CORATTN+DISTLEG(JMI)+DISTLOW(JMI)+ATNIFMI
SNEW=EXP(-ATLEG) $ ASSIGN 547 TO LVRECALC $ GO TO 400
547 RECLOW=RSVLOW $ RSVLOW=0.0 $ ADD2=ADD2+RECLOW
GO TO 555
Cooo ALLOCATE REMAINING RESERVE (RETURN TO 450)
548 LL=1 $ L=IMPORTRILL) $ POSATTR=ATTRAILSTIL: $ FSTATN=CORATTN
RATELEG=0.0 $ VALTOT=VALDNCN(LASTPAY)
VALT=VALTOT+VORIG $ GO TO 205
550 ADD2=ADD2+DISTLOW(JHOME)

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IDENT FLTPLAN

02331
01507
00950
40167
09034
00025
04540
01751
00214
99221
00001
00014
00024
01445
00022
00007
00021
00025
00002

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES
3
PRINT
PRIC:TOPT
CURRAID
SORT:YIGI
CURSOR:TY
OUTSQT
RUNCHECK
INITOPT
COMWIOCH
RAIOSMR
GRPTYPE
INQ:K
EVAL
DEBUG
PCALL
EXTERNAL SYMBOLS
01010100
ORQDICT-
PRINTIT
PRINTF
DIFF
XMAXOF
MINIF
MAXIF
LOGF
EXPF

5.475	FLTPLAN	12/10/77	ED	PAGE NO.	10							
P02240	ADP1	01547	01656	01669	02101	02103	02122	02125	02127	02131		
P02241	ADP2	01532	01622	01624	02055	02054	02075	02100				
P02242	ADP3	01535	01755	01760	02133	02136						
C00015	ADOL04	01022	01023	01026	01053	01053	01060	01062	01062	01063	01065	01067
C00025	ADNTEST	01145	01146	01147	01147	01155						
C00004	ALERTJULY											
C00020	ATAMEA											
P02243	ATDIFM1	00432	00544	01173	02337	00242	00242	00546	00547	00557	00560	00562
C00001	ATLEG	00213	00213	00240	00241	01176	01176	01642	01643	01732	01733	01733
		00602	00603	00603	01176	01176	01442					
		02017	02020	02020	02040	02041	02041					
C00000	ATLEGMI	00427	00431									
P02244	ATLO	00212	00212	00235	00236	00545	00546	00600	00600	00621	00621	01175
C00021	ATLOCAL	01176	01253	01253	01260	01260	01471	01571	01637	01731	02017	
C01357	ATLOGMI											
C00027	ATPFWLG	00421	00422	00771	00772	01316	01311	02061	02062			
C00066	ATP01ST	00237	00240	00425	00474	00501	00491	01214	01215	01240	01240	01254
C00013	ATTAMILC	01254	01305	01305	01461	01461	01461	01641	01731	01732		
C17027	ATTML0C											
C00026	ATTM0M	00331	00332	00340	00341	00345	00356	00367	00370	00374	00375	00516
C00160	ATTROUT	00516	00527	00527	00533	00533	00536	00537	00570	00571	00572	00573
C00005	AVATLOW	01465	01465									
C00217	AVLOW											
C00011	BASELAT											
C00112	BASELONG											
P02245	BEGIN.	02225										
C00007	CFP											
C00000	CLAT											
C00007	CLENGTH											
C00001	CLONG											
C00134	CNTMLC											
C33737	CNTRYLOC											
C00011	CSKATTR	00075	00075	00210	00210	00423	00424	00426	00430	00430	00540	00541
		00574	00574	00624	00624	01165	01165	01170	01170	01223	01223	01727
		01727	02014	02014	02033	02033	02063	02064				
C00012	CORSAATR	00076	00232	00233	01013	01014	01044	01044	01125	01125	01210	01211
		01216	01217	01224	01635	01636						
P02245	COUNT.	01302	01303	01333	01333	02177	02200					
C00014	CPTATT	01013	01015	01016	01043	01043	01104	01104				
C00013	CURVAL	00101	00726	01127	01166	01166	01462	01462				
C00002	CZONE											
C00032	O											
P02246	DEFICIT	01407	01414	01416	01425							
C33257	DELAY											
C00213	DELAY											
P02247	DELNAME	01274	01355									
C25373	DELONG											
C27507	DESIG											
P00001	OICT.	00052	00063	00071	00151	00226	00245	00261	00314	00346	00364	00403

5.475 FLTPLAN

11

PAGE NC.

63

15/01/21

X00005 DIFF
002250 DIFF

11510 2E000J
0154701 052200

C06037 DISC
C06038 DISC

C20033 DYST?

CG0024 015147

CO0003 DISTA-0

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COB311 MYST-
COB311 MYST-
COB311 MYST-

015709 916667

COOLIDGE DISTRICT

COPIES DESTROYED

C12577 C15707

C18713 015T9FC

CI4713 DISTEC
CI4713 DISTEC
CI4713 DISTEC

ASIS 410603
DIS 17

COCCO? !LA?

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02103 031720 031720 031720

021720 UNCL
152200 UNCL

PG2251 08ECV

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05215 05TH

057150 1-07150
C07294 402005

2-0715C 502603
1-0715C -02003

C99206 C5110-3
C99205 C5110-2

90206 0510-3

CO1507 EVALA

HTWAG 464103

UTWAC DEEDC603

107747 0506603

252204 1013

1073 508000

70606 ELG

002226 EN(0)ING.

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11111 000000

00554	00563	00606	00613	00645	00655	00716	00736	00758	00780	00802	00824	00846	00868	00890	00912	00934	00956	00978	01000	01022	01044	01066	01088	01110	01132	01154	01176	01198	01220	01242	01264	01286	01308	01330	01352	01374	01396	01418	01440	01462	01484	01506	01528	01550	01572	01594	01616	01638	01660	01682	01704	01726	01748	01770	01792	01814	01836	01858	01880	01902	01924	01946	01968	01990	02012	02034	02056	02078	02100	02122	02144	02166	02188	02210	02232	02254	02276	02298	02320	02342	02364	02386	02408	02430	02452	02474	02496	02518	02540	02562	02584	02606	02628	02650	02672	02694	02716	02738	02760	02782	02804	02826	02848	02870	02892	02914	02936	02958	02980	03002	03024	03046	03068	03090	03112	03134	03156	03178	03200	03222	03244	03266	03288	03310	03332	03354	03376	03398	03420	03442	03464	03486	03508	03530	03552	03574	03596	03618	03640	03662	03684	03706	03728	03750	03772	03794	03816	03838	03860	03882	03904	03926	03948	03970	03992	04014	04036	04058	04080	04102	04124	04146	04168	04190	04212	04234	04256	04278	04300	04322	04344	04366	04388	04410	04432	04454	04476	04498	04520	04542	04564	04586	04608	04630	04652	04674	04696	04718	04740	04762	04784	04806	04828	04850	04872	04894	04916	04938	04960	04982	05004	05026	05048	05070	05092	05114	05136	05158	05180	05202	05224	05246	05268	05290	05312	05334	05356	05378	05400	05422	05444	05466	05488	05510	05532	05554	05576	05598	05620	05642	05664	05686	05708	05730	05752	05774	05796	05818	05840	05862	05884	05906	05928	05950	05972	05994	06016	06038	06060	06082	06104	06126	06148	06170	06192	06214	06236	06258	06280	06302	06324	06346	06368	06390	06412	06434	06456	06478	06500	06522	06544	06566	06588	06610	06632	06654	06676	06698	06720	06742	06764	06786	06808	06830	06852	06874	06896	06918	06940	06962	06984	07006	07028	07050	07072	07094	07116	07138	07160	07182	07204	07226	07248	07270	07292	07314	07336	07358	07380	07402	07424	07446	07468	07490	07512	07534	07556	07578	07600	07622	07644	07666	07688	07710	07732	07754	07776	07798	07820	07842	07864	07886	07908	07930	07952	07974	07996	08018	08040	08062	08084	08106	08128	08150	08172	08194	08216	08238	08260	08282	08304	08326	08348	08370	08392	08414	08436	08458	08480	08502	08524	08546	08568	08590	08612	08634	08656	08678	08700	08722	08744	08766	08788	08810	08832	08854	08876	08898	08920	08942	08964	08986	09008	09030	09052	09074	09096	09118	09140	09162	09184	09206	09228	09250	09272	09294	09316	09338	09360	09382	09404	09426	09448	09470	09492	09514	09536	09558
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5.ATS	FLTPLAN	12/10/71	EO	0	PAGE NO.	12
C00000	FLOW	00703 00703 00703	00710	00712	00712	00722
P00015	FORMAT	00703 00703 00703	00710	00712	00712	00722
C00007	FSTATR	00703 00703 00703	00710	00712	00712	00722
C00021	FUNCTION	00703 00703 00703	00710	00712	00712	00722
C00014	MAPTYPE	00703 00703 00703	00710	00712	00712	00722
P00254	II	00703 00703 00703	00710	00712	00712	00722
C00073	IAVAL	00703 00703 00703	00710	00712	00712	00722
P00255	IR	00703 00703 00703	00710	00712	00712	00722
C00001	ICALL	00703 00703 00703	00710	00712	00712	00722
C00001	ICAMEROM	00703 00703 00703	00710	00712	00712	00722
C00006	ICAMPLAN	00703 00703 00703	00710	00712	00712	00722
C00007	ICLASS	00703 00703 00703	00710	00712	00712	00722
C00014	ICORCAR	00703 00703 00703	00710	00712	00712	00722
C00017	ICORIFOR	00703 00703 00703	00710	00712	00712	00722
C00005	ICORP	00703 00703 00703	00710	00712	00712	00722
C00014	ICORSMR	00703 00703 00703	00710	00712	00712	00722
C00002	ICUAMAIN	00703 00703 00703	00710	00712	00712	00722
C00001	ICURSTRY	00703 00703 00703	00710	00712	00712	00722
C00216	INDUSTRY	00703 00703 00703	00710	00712	00712	00722
C00021	INDUSTRY	00703 00703 00703	00710	00712	00712	00722
P00003	IOEF	00703 00703 00703	00710	00712	00712	00722
C00003	INDICH	00703 00703 00703	00710	00712	00712	00722
C12463	INDEN	00703 00703 00703	00710	00712	00712	00722
C00004	IEVAL	00703 00703 00703	00710	00712	00712	00722
P00256	IEFILT	00703 00703 00703	00710	00712	00712	00722
C00004	IFLY	00703 00703 00703	00710	00712	00712	00722
P00257	IGOTO	00703 00703 00703	00710	00712	00712	00722
C00013	IGRDATA	00703 00703 00703	00710	00712	00712	00722
C00012	IGRDATA	00703 00703 00703	00710	00712	00712	00722
P00260	IMI	00703 00703 00703	00710	00712	00712	00722
P00261	IMIGH	00703 00703 00703	00710	00712	00712	00722
C00021	IMIT	00703 00703 00703	00710	00712	00712	00722
P00262	II	00703 00703 00703	00710	00712	00712	00722
C00010	INDOX	00703 00703 00703	00710	00712	00712	00722
C00007	INDOXY	00703 00703 00703	00710	00712	00712	00722
C00215	INDY	00703 00703 00703	00710	00712	00712	00722
C00003	INDOXY	00703 00703 00703	00710	00712	00712	00722
C00003	INDEXNO	00703 00703 00703	00710	00712	00712	00722
C00374	INDEXNO	00703 00703 00703	00710	00712	00712	00722
C00003	INDEXNO	00703 00703 00703	00710	00712	00712	00722

P01612 .509 01556
 P01612 .510 02137
 P01615 .515 01650
 P01652 .520 01672
 P01665 .521 01703
 P01674 .530 01704
 P01700 .532 01704
 P01705 .533 01704
 P01711 .534 01720
 P01721 .535 01720
 P01742 .536 01740
 P01746 .537 01754
 P01755 .540 01744
 P01764 .541 01763
 P01767 .542 01763
 P01773 .543 02002
 P02003 .544 02002
 P02014 .545 01772
 P02027 .546 02013
 P02047 .547 02045
 P02055 .548 01763
 P02070 .55 02257
 P02075 .550 00741
 P02104 .555 01762
 P02105 .560 01376
 P02117 .561 02116
 P02137 .565 00271
 P02273 .54 00272
 P02276 .60 01651
 P02148 .600 02156
 P02157 .601 02156
 P02164 .602 02156
 P02205 .603 02203
 P02207 .604 00275
 P02302 .61 00275
 P02217 .610 00327
 P00331 .62 00330
 P00334 .63 00330
 P00373 .70 00333
 P00407 .78 00371
 P00412 .79 00475
 P00415 .80 00475
 P00444 .90 00457
 P03461 .95 00007
 P02232 .FRASER. 00347
 00561
 00735
 01045
 01206
 01403
 02021
 P00015 ..100000
 P00016 ..100001

01753

02806

00072 00229 00232 00237 00243 00312 00315 00336 00348 00344
 00362 00365 00401 00404 00501 00504 00502 00504 00552 00555
 00604 00643 00646 00653 00656 00662 00665 00671 00673 00732
 00754 00757 00776 00880 01004 01006 01011 01035 01040 01040
 01046 01047 01074 01077 01122 01133 01136 01174 01203 01203
 01220 01222 01230 01237 01242 01247 01265 01315 01401 01401
 01443 01444 01453 01477 01502 01627 01635 01644 01644 01734
 02042 02042 02110 02110 02153 02153

P00017	..100002	00037
P00020	..100003	00263
P00021	..100004	00315
P00022	..100005	00316
P00023	..100006	00350
P00024	..100007	00366
P00025	..100008	00405
P00026	..100009	00495
P00027	..100010	00556
P00030	..100011	00615
P00031	..100012	00647
P00032	..100013	00657
P00033	..100014	00736
P00034	..100015	00766
P00035	..100016	01041
P00036	..100017	01100
P00037	..100018	01127
P00040	..100019	01206
P00041	..100020	01207
P00042	..100021	01370
P00043	..100022	01502
P00044	..100023	01503
P00045	..100024	01517
P00046	..100025	02153
P00047	..100026	02154
P002231	..700001..	01454
C00003	JAF00	01854
C00011	JAF00A	
C00017	JAF00B	
C00013	JAF	
C00207	JR	02167
C00002	JC000A	00270
C00270	J00F	01674
C00095	J00L	
C00001	J00LM	
C00005	J00FN	
C00001	J00CM	00113
P00271	J00	00464
P00272	J002	00116
		00466
		00614
P00273	J003	01433
P00274	J00F	02000
C00016	J00NF	00217
		01112
		01526
C00023	J00T50Y	
C00024	J00AYLOAD	
C00004	J00F	
C00027	J00FUEL	
C00017	J00CF00A	
C00018	JT67	

01455 02111 02112

02162	02163			
00270	00276			
01675	01700	01701	01702	01743

09113	09123	09125	09126	09132	09136	09253	09265	09445	09461
09464	09630	09752	09831	09967					
09144	09153	09166	09217	09221	09260	09268	09262	09441	09441
09446	09452	09466	09473	09522	09530	09534	09566	09575	09597
09614	09622	09626	09143	09152	09345	09353	09716	09722	09752
09434	09433	09431							
09000	09004	09015	09352	09353	09620	09620	09627	09654	09667
09217	09270	09320	09320	09352	09527	09537	09525	09525	09526
09112	09112	09121	09121	09152					
09526	09615	09615	09676	09676					

5-675 FLTPCLAN

[illegible]

01561	01554	01565	01570	01577	02143	02147	02202	02235	02280
01562	01563	01564	01565	01566	01567	01568	01569	01570	01571
01572	01573	01574	01575	01576	01577	01578	01579	01580	01581
01582	01583	01584	01585	01586	01587	01588	01589	01590	01591
01592	01593	01594	01595	01596	01597	01598	01599	01600	01601
01602	01603	01604	01605	01606	01607	01608	01609	01610	01611
01612	01613	01614	01615	01616	01617	01618	01619	01620	01621
01622	01623	01624	01625	01626	01627	01628	01629	01630	01631
01632	01633	01634	01635	01636	01637	01638	01639	01640	01641
01642	01643	01644	01645	01646	01647	01648	01649	01650	01651
01652	01653	01654	01655	01656	01657	01658	01659	01660	01661
01662	01663	01664	01665	01666	01667	01668	01669	01670	01671
01672	01673	01674	01675	01676	01677	01678	01679	01680	01681
01682	01683	01684	01685	01686	01687	01688	01689	01690	01691
01692	01693	01694	01695	01696	01697	01698	01699	01700	01701
01702	01703	01704	01705	01706	01707	01708	01709	01710	01711
01712	01713	01714	01715	01716	01717	01718	01719	01720	01721
01722	01723	01724	01725	01726	01727	01728	01729	01730	01731
01732	01733	01734	01735	01736	01737	01738	01739	01740	01741
01742	01743	01744	01745	01746	01747	01748	01749	01750	01751
01752	01753	01754	01755	01756	01757	01758	01759	01760	01761
01762	01763	01764	01765	01766	01767	01768	01769	01770	01771
01772	01773	01774	01775	01776	01777	01778	01779	01780	01781
01782	01783	01784	01785	01786	01787	01788	01789	01790	01791
01792	01793	01794	01795	01796	01797	01798	01799	01800	01801
01802	01803	01804	01805	01806	01807	01808	01809	01810	01811
01812	01813	01814	01815	01816	01817	01818	01819	01820	01821
01822	01823	01824	01825	01826	01827	01828	01829	01830	01831
01832	01833	01834	01835	01836	01837	01838	01839	01840	01841
01842	01843	01844	01845	01846	01847	01848	01849	01850	01851
01852	01853	01854	01855	01856	01857	01858	01859	01860	01861
01862	01863	01864	01865	01866	01867	01868	01869	01870	01871
01872	01873	01874	01875	01876	01877	01878	01879	01880	01881
01882	01883	01884	01885	01886	01887	01888	01889	01890	01891
01892	01893	01894	01895	01896	01897	01898	01899	01900	01901
01902	01903	01904	01905	01906	01907	01908	01909	01910	01911
01912	01913	01914	01915	01916	01917	01918	01919	01920	01921
01922	01923	01924	01925	01926	01927	01928	01929	01930	01931
01932	01933	01934	01935	01936	01937				

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SYN ROUTINE FLT-CHUF
CS/PR  FLTRUTE 22GCT1 .....
CUSE  WASTEM  IFERT1 .....
      COMMON/MASTEM/INDATE,INENT,LO,TS,IN,.....,NCTPT,NCOMMON,INEN,RECOVER
      1,NDEF,MANAT,MEG,TYPE,NGROUP,NTOT,ASE,NPAYLOAD,NAS,TYPE,NMMD,TYPE
      2,NTAM,AS,NCOMPLEX,INCLASS,NALERT,NIGTS,NCOMTYPE,NCMTRY
      WASTEM .....
      PRINTOT 9/10/69 .....
      COMMON/PRINTOT/ISRTVGT,ICURSHY,ICURHAID,IRSTKCM,TEVAL,
      1,IRADISW,ICMPLAN,IIATOT,IIINFA,IIIGTASW,
      2,IGRTYPE,IGAPDATA,ICURCAR,ISTKSUM,ICOMSUM,
      3,ICORIDM,INEXFTL,IOERUG,JMFUEL,JOITSH,IPAYLOA
      PRINTOT .....
      WASTSM 9/10/69 .....
      COMMON/RAIDSM/ASW,NRVEH(20),DISTH(200),NM,VPRASE,
      1,NRPV(20),MPC,IGTSMIND,NASBPV(20)
      TYPE INTEGER VPRASE .....
      WASTSM .....
      NERTFL 9/10/69 .....
      COMMON/NEXTFL/NTALS,J,SPLIT,R6,LH
      NERTFL .....
      CURRAID IFERT1 .....
      COMMON/CURRAID/PYRASE(100),NASGN(100),JIGT(10,100),MYASGN(1100),
      IINDERVEN(100)
      CURRAID .....
      COMMON/2/PHI(1100),RMO(1100)
      TGTASEN 9/10/69 .....
      COMMON/TGTASEN/TGTASGN,TTLT,N,TGT,TESTGT,ILASGT,IFST-EN,LISTVEN,
      1,ISTDE .....
      TGTASEN IFERT1 .....
      RAIDSTK IFERT1 .....
      COMMON/RAIDSTK/ICOR,INDEXND(1100),TLAT(1100),TLOWG(1100),
      ITIMEPRE(1100),IDPEN(1100),DISTOUT(1100),CISTHEC(1100),
      RATTLOC(1100),VAL(1100),DELAT(1100),PELON(1100),DEST(1100),
      2,ASGN(1100),CNTVLOC(1100),FLAG(1100)
      RAIDSTK .....
      C CHANGED COMMON/RAIDSTK/ TO COMMON/3/
      GAPDATA 9/10/69 .....
      COMMON/GAPDATA/IGROUP,NPNS,NVEMGRP,REG,ITYPE,IATFMT,I-ETFEL,
      1,YIELD,ISTART,NRASE,INASF(150),MLAT(150),MLONG(150),
      2,IPAYLOAD(150),VEMHASE(150)
      TYPE INTEGER VEMHASE .....
      GAPDATA .....
      KEYS 9/10/69 .....
      COMMON/KEYS/KEYSTART,KEYVHASE
      KEYS .....
      ARAYSIZE 9/10/69 .....
      COMMON/ARAYSIZE/MASEPC,MC,MT,ML,MS,IN,MSRT,MSRT,MSLY,MARPA
      ARAYSIZE .....
      DERUG 9/10/69 .....
      COMMON/DERUG/ITA,ICANFLOW(20)
      DERUG .....
      FLTPASS 9/10/69 .....
      COMMON/FLTPASS/IFPASS,JWELO,JWEHI,NVEMPASS,NPASS
      FLTPASS .....

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IF (NPREFT,LF,0) 100,42
42 CALL PNTFTL(JPORD,ISTDE)
  ISTARTGET(KYSTART,JP,VOMBASE)
  ICALL=152
  CALL PNTFTL(INEXTFL)
  IF (NTAILS) 100,100,44
64 IF (NTAILS-60,PREFTS) 75,65
65 GO TO (64,70) ISIDE
68 IF (STVEN,ISTSW)
  ISTART=ISTSW-NTAILS
  LSTVEN=ISTSW-1
  GO TO 80
70 LSTVEN=ILFISW
  ILFISW=ILFISW-NTAILS
  IF (STVEN,ILFISW,1)
  GO TO 80
75 IF (STVEN,ISTSW)
  LSTVEN=ILFISW
  NTAILS=LSTVEN-IF (STVEN,1)
  ISTART = ISTART + NTAILS
  RECORD ASSIGNMENT IN COMMON/SORTY
  MYBASE(ISTSW)=J-
  MYBASE(ISTSW)=LSTVEN
82 INTERVEN(ISTSW)=VOMBASE-20FM(JR)+ISTART
90 NDEFM(JR)=MYBASE-(J-1)
  ICALL=83
  CALL PNTFTL(ISTRATOSM)
  CALL I67AS6
  ICALL=153
  CALL PNTFTL(IVETASG)
  CALL PNTFTL(IVCHRAID)
  GO TO 29
100 CALL TIME=11
  ICALL=16
  CALL PNTFTL(INEXTFL)
  ICALL=19
  CALL PNTFTL(IVCHRAID)
  ICALL=20
  CALL PNTFTL(ISTACPM)
  IF (NPASS,ET,1) 101,110
101 IF (IPASS,EQ,CPASS) 110,102
102 IF (NTAILS) 105,103,103
103 NTAILS=1000 + 60 TO 110
105 NTA=58-1050+TAILS
110 ISTART=1-1
  RETURN
END

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5-ATS FLTSQUITE

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C17027	ATTMOC	00467							
P00464	HEGIN.								
C00240	HLAT								
C00464	LSOG								
C33737	CMHVLDC								
P00584	COM-Y.								
C23257	RELAT								
C25373	DEL046								
C27507	0ES16								
P00001	DICT.								
C00311	DISTH								
C12577	DISTOUT								
C14713	DISTOFC								
P00470	ENDING.								
P00000	EXIT.								
C34053	FLAG								
P00202	FLTPASS								
P00605	FLTSQUITE								
P00003	FORM-AT.								
P00505	I								
C00005	IALFRT								
P00506	IN								
C00012	INASE								
C00001	ICALL								
C00001	ICAFROM								
C00004	ICMPLAN								
C00014	ICORCER								
C00017	ICORINOR								
C00016	ICORSMO								
C00002	ICURRAIN								
C00001	ICURSPRY								
C00021	IDC-HUG								
C00001	INFATNO								
C10463	INPEM								
C00004	IFVAL								
C00000	IFPASS								
C00003	IFSTGT								
C00005	IFSTVEN								
X00018	IGET								
P00507	IGOTO.								
C00000	IGROUP								
C00013	IGPEATA								
C00012	IGRPTYPE								
C00000	IMDATE								
C00012	IINDEX								
C00007	INITIMP								
C00004	ILAS-ET								
P00510	ILFISRT								
C00003	IMPEMO								
C04374	IMPEXVEN								
C00020	IMEXTFLT								
P00466	INITIAL.								

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C00002	JCCP	00313							
C00001	JGROUP								
C00023	JOTISMT								
C00024	JPAYLOAD								
C00022	JREFUEL								
C00310	JTGT								
C00002	JFPMI								
C00001	JVFUO								
C00003	KP	00046	00044						
C02000	KEYSTART	00316							
C00001	KEYBASE	00234							
C00004	L	00087							
C00006	LSTFEM	00345							
C00012	MARA	00369	00350	00350	00361	00301	00371	00371	
C00006	MASEPG								
C00001	MC								
P00513	MELAFY	00261	00265						
P00514	MEORT	0026	00261						
C00007	MELY								
C00003	MI								
C00005	MSOUTY								
C00004	MSY								
C00004	MSIRK								
C00002	MT								
C02206	MYASGN	00042	00043						
C00000	MYRSE	00000	00000						
C00023	NALLOT								
C00144	NASGN	00224	00225						
C01135	NASPPV								
C00014	NASTYPE								
C00021	NH	00045	00045						
C00011	NHASE	00114	00114						
C00010	NHOPY								
C00022	NCLASS								
C00026	NCONTR								
C00021	NCOMPLY								
C00004	NCONPW								
C00025	NCONTYPE								
C00005	NOPEN								
X00011	NEATELY	00311	00306	00331					
P00515	NEFFESMT	00301							
C00013	NHGROUP	00032	00033	00200	00200	00447	00447	00453	
C00004	NPASS								
C00015	NPAYLOAD								
C00006	NRECOVER								
C00007	NREF								
C00011	NREFG								
C00003	NRTPT	00075	00075	00710	00116	00133	00133	00402	00405
C00001	RDVEA	00027	00036	00036	00036	00054	00054	00154	00154
C00000	NT	00326	00326	00330	00330	00343	00343	00352	00352
C00000	NTAILS	00365	00455	00455	00457	00460	00461	00462	00462
C00020	NTANKPAS								
C00002	NTGT	00023	00023						

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CALL ROADRAY(NT,3)
DO 5 I=1,11
5 CALL ROADRAY(ROADSTK(I,1),NT)
  MLOG=(NT-1)/22 + 1
  CALL ROADRAY(I,1,NLOG)
  DO 500 I=12,15
500 CALL ROADRAY (ROADSTK(I,1),NT)
  IF (ISKIP70-16) GOTO 101,101,100
100 IOTA=IOTA-1
  RETURN
101 DO 51 I=1,NT
51 ATTRLOC(I)=ATTRLOC(I)+TARFAC
  ICALL=127
  WSPRINTF(-126,8MAYSIZE)
  C SET DATA FOR PROPER CORRIDOR IN COMMON CORRIDOR
6 KORR=ICORR-JCORR
  CALL SETFLAG
  DO 7 IDATA=1,70
7 DUMM(IDATA) = DUM(KORR,IDATA)
  CALL CENTROID(NT,TLAT,TLONG,CLAT,CLONG)
  ICALL=11
  CALL PRINTIT(1,CORRIDOR)
  ITEMREF=IREFUEL
  IF (JCORN.LE. 2) 10, 15
10 IREFUEL=0
15 CONTINUE
  C ORDER BASES BY DISTANCE
  IF (KORR.LE. 2) 55, 58
55 CALL MACORR
  CALL CORPARRM(1,PLAT,RLONG,1,NR)
  CALL ORDER(PHI,ISEQ,NR)
  CALL REORDER(1,SEQ,NR,7,PLAT,RLONG,IBASE,1,DISTN,VOMRASE,N+VEH,NUPV)
  CALL REORDER(1,SEQ,NR,2,NASMPV,IPAYLOAD,0.0,0.0,0)
  ICALL=150
  CALL PRINTIT(1,INSTCPRM)
  CALL PRINTIT(1,CORRDATA)
  GO TO 800
58 CALL CENTROID(NR,PLAT,RLONG,CENTLAT,CENTLONG)
  DO 80 I=1,NR
80 IF (IREFUEL) 60,60,70
60 DISTN(I)=DISTN(PLAT(I),RLONG(I),PLAT,ELONG)
  GO TO 80
70 DISTN(I)=DISTN(PLAT(I),RLONG(I),PLAT,ELONG),REFLAT(IREFUEL),REFLONG
  1 (IREFUEL)
80 CONTINUE
  ICALL=87
  CALL PRINTIT(1,ROADSHR)
  CALL ORDERDISTN(1,SEQ,NR)
  CALL REORDER(1,SEQ,NR,7,PLAT,RLONG,IBASE,1,DISTN,VOMRASE,N+VEH,NUPV)
  CALL REORDER(1,SEQ,NR,2,NASMPV,IPAYLOAD,0.0,0.0,0)
800 ICALL=9
  CALL PRINTIT(1,AINSHR)
  ICALL=88
  CALL PRINTIT(1,CORRDATA)
  C PUT ROADSTK DATA IN ORDER BY ASCENDING VALUES OF PHI
  DO 91 I=1,500

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41 ISEC(1)=0
   CALL COMPARMP(JCGR,TLAT,TLONG,1,NT)
   CALL ORDER(MI,ISEO,NT)
   CALL ORDER(ISED,NT,7,INDEXNO,TLAT,TLONG,1)*PRFM,INPM,
      NTSTOUT,DISINFC)
1  CALL REORDER(ISED,NT,6,ATRLC,AVL,PMI,PTC,DELAT,DELONG,0)
   CALL REORDER(ISED,NT,4,RESIG,TA54,CATVLOC,FLAS,0,0,0)
   ICALL=13
   CALL PRINTIT(POSTKCPM)
   DO 810 J=1,NT
810 I=TIME(J,NT)*TIMESEG(J,1)
   CALL FLTROUTE
      ** TO ASSIGN BASES TO EACH SORTIE
20 IF(NTAILS) 35,49,40
35 PRINT 37, JGRGRP,NTAILS
37 FORMAT (40H ENOUGH IN COUNTRY OF VIEW ON BASES GROUP
      1=,12)
40 CALL GOTMID
      ** TO OPTIMIZE SORTIES
   IF(TRANSF(NTAILS),6F,1000) 49,50
49 CALL FLTPASS
60 TO 30
50 IREFUEL=ITEMPHFF
   INTA=INTA-1
   RETURN
   END

```

113000
114000
115400
116400
117000
118000
118500
119400
120000
120200
120400
121000
122400
123000
123400
125000
125600
127000
128000
129000
130000
131000
132000
133000
134400
135000

[illegible]

5.475 6FNA7R

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100

C00000	IC00TY
C00006	IS01Y1G1
C00010	IS01Y1
C00015	IS01SU0
C00053	IT00P0EF
C00081	IT01AS0N
C00090	IT01
C00094	IT01F
C00107	IT01
C00173	IT01
C00175	IT01
C00176	IT01
C00187	IT01
C00188	IT01
C00189	IT01
C00190	IT01
C00191	IT01
C00192	IT01
C00193	IT01
C00194	IT01
C00195	IT01
C00196	IT01
C00197	IT01
C00198	IT01
C00199	IT01
C00200	IT01
C00201	IT01
C00202	IT01
C00203	IT01
C00204	IT01
C00205	IT01
C00206	IT01
C00207	IT01
C00208	IT01
C00209	IT01
C00210	IT01
C00211	IT01
C00212	IT01
C00213	IT01
C00214	IT01
C00215	IT01
C00216	IT01
C00217	IT01
C00218	IT01
C00219	IT01
C00220	IT01
C00221	IT01
C00222	IT01
C00223	IT01
C00224	IT01
C00225	IT01
C00226	IT01
C00227	IT01
C00228	IT01
C00229	IT01
C00230	IT01
C00231	IT01
C00232	IT01
C00233	IT01
C00234	IT01
C00235	IT01
C00236	IT01
C00237	IT01
C00238	IT01
C00239	IT01
C00240	IT01
C00241	IT01
C00242	IT01
C00243	IT01
C00244	IT01
C00245	IT01
C00246	IT01
C00247	IT01
C00248	IT01
C00249	IT01
C00250	IT01
C00251	IT01
C00252	IT01
C00253	IT01
C00254	IT01
C00255	IT01
C00256	IT01
C00257	IT01
C00258	IT01
C00259	IT01
C00260	IT01
C00261	IT01
C00262	IT01
C00263	IT01
C00264	IT01
C00265	IT01
C00266	IT01
C00267	IT01
C00268	IT01
C00269	IT01
C00270	IT01
C00271	IT01
C00272	IT01
C00273	IT01
C00274	IT01
C00275	IT01
C00276	IT01
C00277	IT01
C00278	IT01
C00279	IT01
C00280	IT01
C00281	IT01
C00282	IT01
C00283	IT01
C00284	IT01
C00285	IT01
C00286	IT01
C00287	IT01
C00288	IT01
C00289	IT01
C00290	IT01
C00291	IT01
C00292	IT01
C00293	IT01
C00294	IT01
C00295	IT01
C00296	IT01
C00297	IT01
C00298	IT01
C00299	IT01
C00300	IT01
C00301	IT01
C00302	IT01
C00303	IT01
C00304	IT01
C00305	IT01
C00306	IT01
C00307	IT01
C00308	IT01
C00309	IT01
C00310	IT01
C00311	IT01
C00312	IT01
C00313	IT01
C00314	IT01
C00315	IT01
C00316	IT01
C00317	IT01
C00318	IT01
C00319	IT01
C00320	IT01
C00321	IT01
C00322	IT01
C00323	IT01
C00324	IT01
C00325	IT01
C00326	IT01
C00327	IT01
C00328	IT01
C00329	IT01
C00330	IT01
C00331	IT01
C00332	IT01
C00333	IT01
C00334	IT01
C00335	IT01
C00336	IT01
C00337	IT01
C00338	IT01
C00339	IT01
C00340	IT01
C00341	IT01
C00342	IT01
C00343	IT01
C00344	IT01

00167 90406
01803 90043

00171 00104
00104 00104

63441
63461

69711

ESCU 152.1

10241
10242
10243

00064 00130
00033

00427 00427 00427

06-278

0007A

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```

COMMON/STEPSU/KGROUP,ISTPR,NCORH,ASTPR(39)
CEND
STEPSU *****
COMMON/VELAS:RO,ITP(200),TREFL(200),PLUMBY(1728)
CUSE
CPUTYPE IFCAT1 *****
COMMON/CPUTYPE/ISTTYPE,IRANGE,CPU,SPEED,VALENTULY,VALQTDLY,VALGEDEC
1 JCLASS,NOFEMSON,SPRINT,SEMILO,SPRASH,VALGREF,IMP SITE,INEP
2 JRECODE,INFCODE,FUNCTION
TYPE INTEGER FUNCTION
TYPE PRL NALTDLY *****
CEND
CPUTYPE *****
CEND
RATL (LTYPEIN) *****
COMMON/GRDATA 9/10/69 *****
COMMON/GRDATA/IGROUP,PARAS,AVMEMCP,ITREG,ITYPE,TALENT,I-EFUEL,
1 YIELD,ISTART,PHASE,INASE(150),%AT(150),%LONG(150),
2 IPAYLOAR(150),%VONHASE(150)
TYPE INTEGER VONHASE *****
CEND
GRDATA *****
CUSE
ARAYSZ 9/10/69 *****
COMMON/ARAYSZ/PHASEDR,WCNT,ML,NSIDR,NSPRTY,NSHT,NFLY,NAPPA
ARAYSZ *****
CEND
MYTENT 9/10/69 *****
COMMON/MYTENT/MYTENT *****
CEND
MYTENT *****
CUSE
VAL 9/10/69 *****
COMMON/VAL/VALPCVR,MUSTREC,VUNLOAR *****
CEND
VAL *****
DIMENSION G(4),V(6),VALDEC(200)
TYPE INTEGER G *****
CUSE
CONTROL 9/10/69 *****
COMMON/CONTROL/EPSTLOA,FWL,SWT *****
CEND
CONTROL *****
CUSE
PCALL 9/10/69 *****
COMMON/PCALL/PCASS,ICALL *****
CEND
PCALL *****
CUSE
ITP 9/10/69 *****
COMMON/ITP/ITP *****
CEND
ITP *****
CUSE
ITPRINT 9/10/69 *****
COMMON/ITPRINT/ITPRINT(12) *****
CEND
ITPRINT *****
CUSE
NOPRINT 9/10/69 *****
COMMON/NOPRINT/NOPRINT *****
CEND
NOPRINT *****
DATA (IRANGE=2), (IMP SITE=1)
CUSE
ISKIP TO 9/10/69 *****
COMMON/ISKIP TO/ISKIP TO *****
CEND
ISKIP TO *****
CUSE
DERUG 9/10/69 *****
COMMON/DERUG/TOIA,ICAMPRO(20) *****
CEND
DERUG *****
CUSE
IDUMP 9/10/69 *****
COMMON/IDUMP/IDUMP,IDUMPC,IDUMPS,IDUMPP,IPLAN *****
CEND
IDUMP *****
IDURO 1.14,70 *****
COMMON IDURO/IDURO *****
EQUIVALENCE (IDURO,ITORD)

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CEND      TACED      .....
CUSE      FILABEL  IFRT1 .....
COMMON/FILABEL/INIOENT,INUNWC,INDATE,INFORM,INSECR,INTIME,
1 INLGTH,INCOM(15) .....
CEND      FILABEL  .....
CUSE      M/LABEL  IFRT1 .....
COMMON/M/LABEL/MYSOMT,MYSOCR,MYLNGTH,MYCOM(15) .....
CEND      MYLABEL  .....
IP=ASSEN
IOTA=IOTA-1
ICAMPON=(IOTA)*MPOSTALCC
ICALL=2
CALL PRINTII(ITERUG)
3 CONTINUE
RASFILE(1)=-8
NORINT=1
IFINO = 0
MYIDEL=MPOSTALOC
CALL INITAPE
MYIDEL=MPOSTALOC
MYIDEL=MPOSTALOC
CALL SETHEAD
ITSTSEL=MMOV 70
IF (ITSTHSP,ME,INFORM)1,2
1 CONTINUE
PRINT 9,ITSTHSP,INFORM
9 FORMAT (//1X,15(1H),5X,33H BRONG BASFILE FORMAT REQUESTED ,10,
15H GOY ,10)
CALL ARCT
2 CONTINUE
CALL RDARRAY(LOCATE,23)
CALL SKIP(545)
CALL RDARRAY(ITFILE,16)
CALL RDARRAY(PLAT,601)
CALL RDARRAY(IMPDS,100)
CALL RDARRAY(NBOM,1,400)
CALL RDARRAY(PLINK,150)
CALL RDARRAY(INI,1,2)
C IF NIRS ARE USED, READ THE ALLOCATION DATA FROM THE ALLOCAP FILE, IF
C NOT, READ THE DATA FROM THE TPA(LOC FILE
C
CALL SKIP(650)
CALL RDARRAY(ICLAS,60)
CALL SKIP(1400)
CALL RDARRAY(ITYP,200)
CALL SKIP(400)
CALL RDARRAY(IREFL,200)
INPFL=TPALOC(1)
MYIDIMPL=7MTMPALOC
DO 7000 I=1,NGROUP
IT=ITYP(I)
IF (ICLAS(IT) .EQ. 1) 5000,7000
5000 CONTINUE
IP=IFEL(I)
IF (IMTRV(IP))7000,7000,6000

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IF (ITWORD .NE. 'XXXXXXXXXX') GO TO 603
601 CONTINUE
PRINT 602, ITWORD
602 FORMAT (//74M ERROR IN SKIPPING TO POSIDATA PORTION OF BASFILE.
END SENTENCE READ WAS 'X')
CALL ABORT
603 CONTINUE
CALL RDARRAY(JUNK,1)
IF (JUNK .EQ. 'ZZZZZZZZZZ') GO TO 603
READ GRPTAPE NG
62 DO 1000 I=1,NGROUP
  VALRECV=VALREC(1)
  IF (IPHASE) 504,505
505 CONTINUE
  I=JMPFL
  CALL RDARRAY(NGROUP,33)
  IF (NGROUP .EQ. 3) GO TO 506,507
506 CONTINUE
  ITP=BASEFILE(1)
  CALL RDARRAY(IGROUP,10)
  CALL RDARRAY(IPHASE,PHASEPG)
  CALL RDARRAY(PLAT,PHASEPG)
  CALL RDARRAY(PLONG,PHASEPG)
  CALL RDARRAY(IPAYLOAD,PHASEPG)
  CALL RDARRAY(PHASE,PHASEPG)
  CALL SETFLAG
  ICALL=124
  PHASEPG(-12,0,8*PHASESIZE)
  CALL RDARRAY(ISTYPE,LGTYPE)
  IF (ITC-OP-LE,0 .AND. VALRECV.E'.9999') VALRECV = 0.
  IF (NGROUP .EQ. IGROUP) 500,501
501 IF (NGROUP .LT. IGROUP) 502,503
503 IPHASE=1
  GO TO 1000
502 CONTINUE
PRINT 31, MYTIME
11 FORMAT (//1X,07,21M-BASFILE OUT OF PHASE)
CALL ABORT
500 CONTINUE
IPHASE=1
ICALL=125
PHASEPG(-12,0,8*PHASESIZE)
7 ICALL=5
CALL PRINTIT(IGRDATA)
ICALL=6
CALL PRINTIT(IGRTYPE)
ICALL=113 $ CALL PRINTIT(JPAYLOAD)
  IF (ICLASS .EQ. INOMBER) 100,10
10 IF (ICLASS .EQ. INISSILE) 200,20
20 PRINT 21, ICLASS
21 FORMAT(24M UNRECOGNIZED WPN CLASS - 15)
CALL CORT
100 CALL PHORAD
  GO TO 1000
200 CALL 'ISASG'
1000 CONTINUE

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FTNS.5

505 CONTINUE
ICRORP=201
CALL OUTSRT
1002 CONTINUE
ITP=BASEFIL(1)
CALL TERMTAPE
ITP=INPTFL
CALL TERMTAPE
1001 CONTINUE
ITP=STORFIL(1)
CALL TERMTAPE
ICRORP=ICRORP+1
RETURN
END

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161500
162000
162500
163000
163200
163400
163600
163800
164000
164200
164400
164600
164800
165000

IDENT GETGROUP

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

GETGROUP	IDENT
01430	01430
05805	05805
BEGIN	00001
IFEND	00001
PLANTYPE	00003
OPENDEF	00276
PAYLOAD	00620
ASMTABLE	00144
COM-CHAR	01131
FILES	00020
INPUTFL	00002
MASTER	00027
PRINTOPT	00024
STRSUM	00041
I	04230
GRPTYPE	00022
GRPODATA	01370
ARRAYSZ	00011
MYIQUENT	00001
VAL	00003
CONTRCL	00002
PCALL	00002
ITP	00001
IFTPHAT	00012
NOPOINT	00001
ISK-PTO	00001
DEBUG	00025
YUOMP	00005
THORN	00001
FILEL	00014
MYLDEL	00010

EXTERNAL SYMBOLS

THEN
ORDDICT
PRINTIT
INITAPE
SETHEAD
AMORT
NOARRAY
SKIP
DEACTIV
PONTF
SETWITE
ROWORD
SETFLAG
FRENCH
WISAGM
OUTSRT
TERMATE
ISM
STM
ONSMEL

S-4TS GETGROUP

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X00096	ABORT	00560	01143	01261	01330				
C00004	ALERTPLY								
C00012	ALOCGRP	C0664	00664						
C00006	ALOCYR								
C00416	ATTNCOMR								
C00776	ATTMPRE								
C00454	ATTNSUPP								
C00002	CASFILE	C0524	00524	00537	00537	01117	01117	01166	01346
C00000	WEGIN								
P01367	WEGIN								
C00240	RLAT								
C00466	RLONG								
C00002	CEP								
C00074	CFPASM								
P01366	CR-PT1.	00553	00555	00732	00734	00736	00747	00757	00760
		01016	01003	01065	01103	01105	01107	01110	01111
C00002	COMHOMR								
C00001	COM-SI								
P00326	CREFT.								
C00322	CPLNGTH								
X00011	DEACTIV								
C00644	DEF01ST								
C00550	DEFRRAGE								
P00001	DICT.								
		00507	00522	00534	00542	00550	00557	00561	00563
		00577	00602	00605	00610	00613	00616	00621	00624
		01005	01010	01022	01060	01067	01101	01114	01122
		01142	01144	01161	01171	01174	01177	01202	01205
		01323	01336	01345	01351	01355	01361		
C00062	DPLAT								
C00009	DPLINK								
C00144	DPLONG								
C00740	DUMMY								
P01371	ENDING.	C0510	01364	01367	01370				
C00226	ENTLAT								
C00264	ENTLONG								
C00000	EPSILON								
C00014	EVENTAPE								
P00000	EXIT.								
P00326	FORMAT.	01372	00515	00531	00543	00636	00640	00662	0067
		01163	01216	01266					
C00021	FUNCTION								
P00003	G	01001	01015	01026	01042	01045	01050	01053	01064
P00505	GETGROUP	00505							
P00540	6630000.	00544							
P00742	6600001.	00726							
P00752	6600002.	00742							
P00763	6600003.	00752							
P00806	6600004.	00771							
P01023	6600005.	01006							
P01070	6600006.	01056							
P01115	6600007.	01077							
P01141	6600010.	01131							

5.415 GETGROUP

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P01261 GG00011-	01251				
P01330 GG00012-	01320				
C00512 MILGATE					
P01414 I	00764	00770	01000	01002	01013
	01041	01047	01052	01062	01070
	01151	01157			
P01417 II					
C00855 TALEPT					
C00310 TASH					
C00012 TRASF	01175				
P00324 TRGHEW	01313				
C00001 ICALL	00520	00672	00721	00722	01017
	01276	01305			
	00517				
C00001 ICAMFRO					
C00006 ICMGPLAN					
C00000 ICLAS	00617	00646			
C00007 ICLASS	01312	01315	01324	01324	01265
C00014 ICORCAR	00725				
C00017 ICORCOM					
C00016 ICORRES					
C00002 ICORRAID					
C00001 ICORSAFT					
C00021 ICORUS	00523				
C00001 IDENTAO					
C00001 IDROC	01110				
C00009 IDPUS	01106				
C00003 IDPDP	01112				
C00002 IDPWS	01111				
C00004 IFVAL					
P01047 IF00001-	01044				
P01233 IF00002-					
C00000 IF000	00527	00530			
C00000 IF000PT					
P01420 IG	01053	01054	01244	01244	01342
C00000 IGROUP	01172	01241			01343
C00013 IGRPDATA	01301				
C00012 IGRPTYPE	01305				
C00000 IGRATE	00564				
P01421 II	00641	00642	00650	01031	01031
C00010 II00EX					
C00007 II00TGT					
C00050 II00V	00653	00654			
P00325 II00V	01316				
C00007 II00V					
C00002 II00V					
C00020 II00V					
C00003 II00V	00544	00545	00554	00554	
C00004 II00V	00533				
P01347 II00V	00510				
C00000 II00V	00611				
C00006 II00V					
C00005 II00V	00635	00635	00665	00704	00705
C00001 II00V					
C00004 II00V					

5.415 DETGROUP

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C00005	INTIME	00512	00513	00514	00516	00516	01342	01342	01343
C00006	INTA	00652	00653						
P01422	IP								
C00008	IPASS	01206							
C00714	IPAYLOAD								
C00020	IPENCODE	00512	01155	01250	01264				
P01423	IPHASE	01115	01116						
C00004	IPLAN								
C00005	IRATODAR	01230	01230						
C00017	IRECNOOE	00633	00651	00651					
C00430	IREFL								
C00006	IREFUEL								
C00003	IREG								
C00016	IREP								
C00003	IRSTICPM								
C00002	ISIDEM								
C00000	ISINIVPE	01227							
C00000	ISKIPTO	01104	01104						
C00006	ISWYTYGT								
C00010	ISTART								
C00015	ISTANSUM								
P01424	IT	00644	00645						
C00011	ITGTASQA								
C00008	ITP	00540	00540	00705	00706	00716	00716	01120	01157
		01167	01347	01347	01353	01353	01357	01357	01357
P01425	ITSTASFL	00544	00552						
C00000	ITWOPD	01126	01126	01135	01135				
C00120	ITYP	00625	00643						
C00004	ITYPE								
C00050	IW001								
C00170	IW002								
C00000	IW004SM	00600							
P00546	.1								
P01315	.1C	01314							
P01332	.100	01314							
P01337	.1000	01250	0132						
P01236	.100001								
P01240	.100002								
P01346	.1001	01231	01232	01235					
P01346	.1002								
P00502	.2	00545							
P01320	.20	01317							
P01335	.200	01317							
P00524	.3								
P00721	.4								
P00766	.45								
P00771	.450	01072							
P01030	.45								
P01035	.460								
P01037	.47								
P01041	.48	01034							
P01044	.490	01027							
P01052	.491	01063							
P01056	.495	01051							
		01044	01051						

S.015 GETGROUP

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P01073 .49	01043				
P01070 .499	01040	01055			
P00650 .5000					
P01075 .50	01074				
P01263 .500	01242				
P01243 .501	01242				
P01251 .502	01244				
P01247 .503	01245	01245			
P01166 .504	01155	01165			
P01156 .505					
P01342 .506	01165				
P01077 .55	01074				
P00636 .6000					
P01117 .6					
P01131 .601					
P01143 .693	01130	01147			
P01150 .62					
P00667 .7020	00447	00654			
P01275 .7					
P00672 .8000	00664				
P01373 .824554	00675	00700	01217	01222	01267 01272
P00324 .100000	00514				
P00327 .100001	00431				
P00330 .100002	00535				
P00331 .100003	00543				
P00345 .100004	00636				
P00356 .100005	00654				
P00357 .100006	00662				
P00340 .100007	00701				
P00361 .100008	00711				
P00341 .100009	01127				
P00461 .100010	01147				
P00462 .100011	01164				
P00463 .100012	01223				
P00475 .100013	01273				
PC0476 .21	01323				
P03464 .31	01254				
P00302 .41	00765				
P00370 .42	00755				
P00425 .499	01061				
P00412 .55	01131				
P00417 .51	00774	01011			
P00442 .602	01134				
P00436 .67	01102				
P00332 .69	01551				
C00023 JCUTSAT	01311				
C00024 JRAYLOAC					
C00022 JEFFUEL					
P01268 JUM	01145	01145			
C00000 XCR000	01162	01163	01163	01240	01243 01243
C00360 XCR57YLE					
C00001 XCALSAT					
P00323 LGT0PC	01227				
C00010 MAXPA					

5.4YS GETGROUP

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C00000	H04SEPG	01175	01200	01203	01206	01211			
C00001	PC								
C00007	WFLY								
C00017	WISASCM	01335							
C00003	PL								
C00094	WSLTIME								
C00005	WSORTY								
C00006	WSRT								
C00004	WSTAK								
C00002	WT								
C00001	WUSTREC	00735	00735	00750	00756				
C00003	WYCOMM								
C00000	WYFORMT								
C00000	WYIDENT	00532	00532	00536	00536	00557	00703	00704	00712
C00001	WYIDMPL	00637	00637	00663	00663	00702	00703	01255	01255
C00002	WYLMGTH	00714	00714						
C00001	WYSECR								
C00500	WDECOYS								
C00023	WALERT								
C00005	WALRTOLY								
C00240	WASH								
C00016	WAS-TYPE								
C00011	WBASE								
C00010	WBJOBY								
C00022	WCLASS								
C00360	WCM								
C00024	WCMTRY								
C00021	WCOMPLEX								
C00002	WCOOR								
C00004	WCOORW								
C00025	WCOOR-TYPE								
C01130	WDATA								
C00430	WDECOYS								
C00005	WDEPN								
C00013	WGROUP	00670	00670	01300	01300				
C00015	WHP-SITE								
C00000	WIDOW-1	00603							
C00120	WIDOW-2								
C00010	WIDOW-3								
C00000	WIDOW-INT								
C00015	WIDOW-LOAD								
C00006	WIDOW-COE								
C00007	WIDOW-COVER	00526	00526						
C00011	WIDOW-REF								
C00011	WIDOW-RES								
C00003	WIDOW-T								
C00003	WIDOW-TK								
C00020	WIDOW-TAS								
C00024	WIDOW-TS								
C00014	WIDOW-TSASE								
C00001	WIDOW-TSASE								
C00012	WIDOW-TSASE								
C00002	WIDOW-TSASE								
C00017	WIDOW-TSASE								

[illegible]

5.4TS GETGROUP

P01152 WSC0007. 01341 01341
P01427 " 00702 01220 01270
C00007 YIELD
CC073 SYMBOLS

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CSURR CUSE	SUBROUTINE	ETSORT	25000 25001 25002 25003 25004 25005 25006 25007 25008 25009 25010 25011 25012 25013 25014 25015 25016 25017 25018 25019 25020 25021 25022 25023 25024 25025 25026 25027 25028 25029 25030 25031 25032 25033 25034 25035 25036 25037 25038 25039 25040 25041 25042 25043 25044 25045 25046 25047 25048 25049 25050 25051 25052 25053 25054 25055 25056 25057 25058 25059 25060 25061 25062 25063 25064 25065 25066 25067 25068 25069 25070 25071 25072 25073 25074 25075 25076 25077 25078 25079 25080 25081 25082 25083 25084 25085 25086 25087 25088 25089 25090 25091 25092 25093 25094 25095 25096 25097 25098 25099 25100 25101 25102 25103 25104 25105 25106 25107 25108 25109 25110 25111 25112 25113 25114 25115 25116 25117 25118 25119 25120 25121 25122 25123 25124 25125 25126 25127 25128 25129 25130 25131 25132 25133 25134 25135 25136 25137 25138 25139 25140 25141 25142 25143 25144 25145 25146 25147 25148 25149 25150 25151 25152 25153 25154 25155 25156 25157 25158 25159 25160 25161 25162 25163 25164 25165 25166 25167 25168 25169 25170 25171 25172 25173 25174 25175 25176 25177 25178 25179 25180 25181 25182 25183 25184 25185 25186 25187 25188 25189 25190 25191 25192 25193 25194 25195 25196 25197 25198 25199 25200 25201 25202 25203 25204 25205 25206 25207 25208 25209 25210 25211 25212 25213 25214 25215 25216 25217 25218 25219 25220 25221 25222 25223 25224 25225 25226 25227 25228 25229 25230 25231 25232 25233 25234 25235 25236 25237 25238 25239 25240 25241 25242 25243 25244 25245 25246 25247 25248 25249 25250 25251 25252 25253 25254 25255 25256 25257 25258 25259 25260 25261 25262 25263 25264 25265 25266 25267 25268 25269 25270 25271 25272 25273 25274 25275 25276 25277 25278 25279 25280 25281 25282 25283 25284 25285 25286 25287 25288 25289 25290 25291 25292 25293 25294 25295 25296 25297 25298 25299 25300 25301 25302 25303 25304 25305 25306 25307 25308 25309 25310 25311 25312 25313 25314 25315 25316 25317 25318 25319 25320 25321 25322 25323 25324 25325 25326 25327 25328 25329 25330 25331 25332 25333 25334 25335 25336 25337 25338 25339 25340 25341 25342 25343 25344 25345 25346 25347 25348 25349 25350 25351 25352 25353 25354 25355 25356 25357 25358 25359 25360 25361 25362 25363 25364 25365 25366 25367 25368 25369 25370 25371 25372 25373 25374 25375 25376 25377 25378 25379 25380 25381 25382 25383 25384 25385 25386 25387 25388 25389 25390 25391 25392 25393 25394 25395 25396 25397 25398 25399 25400 25401 25402 25403 25404 25405 25406 25407 25408 25409 25410 25411 25412 25413 25414 25415 25416 25417 25418 25419 25420 25421 25422 25423 25424 25425 25426 25427 25428 25429 25430 25431 25432 25433 25434 25435 25436 25437 25438 25439 25440 25441 25442 25443 25444 25445 25446 25447 25448 25449 25450 25451 25452 25453 25454 25455 25456 25457 25458 25459 25460 25461 25462 25463 25464 25465 25466 25467 25468 25469 25470 25471 25472 25473 25474 25475 25476 25477 25478 25479 25480 25481 25482 25483 25484 25485 25486 25487 25488 25489 25490 25491 25492 25493 25494 25495 25496 25497 25498 25499 25500 25501 25502 25503 25504 25505 25506 25507 25508 25509 25510 25511 25512 25513 25514 25515 25516 25517 25518 25519 25520 25521 25522 25523 25524 25525 25526 25527 25528 25529 25530 25531 25532 25533 25534 25535 25536 25537 25538 25539 25540 25541 25542 25543 25544 25545 25546 25547 25548 25549 25550 25551 25552 25553 25554 25555 25556 25557 25558 25559 25560 25561 25562 25563 25564 25565 25566 25567 25568 25569 25570 25571 25572 25573 25574 25575 25576 25577 25578 25
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50 CONTINUE
C*** SCAN OMIT LIST FOR LEAST VALUABLE TARGETS, DROP LOWER HALF TO GO
52 MGRP=(NOMIT-1)/2
55 DO 80 IOUN=1,MGRP
    MINVAL=1E200
    DO 70 I3=1,NOMIT
        J=IOMIT(I3)
        RELVAL=MAIF(DVALR(J),.5*OVALA(J))
        IF(RELVAL-LT,MINVAL) 60,70
        MINVAL=RELVAL
    IDROP=J
70 CONTINUE
C DROP SELECTED TARGET
JOC=IDROP
CALL OUTPCTGT
ICALL=RI
CALL PRINTY(IGURSTY)
80 CONTINUE
C DROP MORE IF NAVAL TOO SMALL FOR MEAT SORTIE
82 M=XARF(MASGN(ISRT))
    IF(NAVAL-LT,N) 85,100
85 IF(NOMIT.EQ.0) 95,100
90 MGRP=1
    GO TO 55
95 M=NAVAL
C*** BRING IN TARGETS FOR SPECIFIED SORTIE
100 SUMVAL=0.0
    JAFI=IORIG & JOLDFLY=IORIG
    DO 135 ISTRK=1,N
        ITA=JTG(IISTOK,ISRT)
        IF(XABSF(ITX))
            CALL IMPOTGT
    JOC=JGTIN
    TO 100 IT INTO OMIT LIST
    JNO=IOMIT(NOMIT)

110 IF(IT.EQ,ITX) 110,120
    CALL CMGPLAN(CTR)
    JOLDFLY=JOC
    TO MOVE TO BOMR LIST
    GO TO 130
120 IAIN=JOLDFLY
    IF(DIFF(JOC,JOLDFLY).GT,NGASH) 121,122
121 IAIN=JOC & JOLDFLY=JOC & GO TO 124
122 I=XABSF(MASGN(ISRT))
    IF(IL.EQ.1) 121,124
124 CALL CMGPLAN(CTR)
C TO MOVE TO ASM LIST
130 SUMVAL=SUMVAL+VALR(JOC)
135 JAFI=JOC
V(RECOVER)=SUMVAL+OVALRECVR
VAL(IRECOVER)=SUMVAL+VALRECVR
VAL(CN(DITCH))=0.0
C*** HOW AND IN SELECTED TARGET FROM LOSITARGET LIST AS SPACE PERMITS
DO 140 IOUN=1,MGRP
    MADD=XINOF(MLOSTTGT,NAVAL)
C BRING IN FROM END OF LIST

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```

140 IT=LOSTTGT(NLOSTTGT)
141 NLOSTTGT=NLOSTTGT-1
142 CALL INPTGT
143 CONTINUE
144 DROP RECOVERY IF FLAGED BY NEG VALUE OF NASGN
145 IF (N=SGN(ISPT).LT.0) 150,145
146 IF (IPECODE=EQ.-1) 150,140
150 J00=IRECOVER
151 CALL CHGPLA.(R)()
152 CONTINUE
153 ICALL=RD
154 CALL PRINTII(ICURSRTY)
155 IOTA=IOTA-1
156 RETURN
157 END
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000

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IDENT GETSORT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

GETSORT 00040
00027
OPENREF 00274
CORRIDOR 00024
PRIATORT 00024
PLAN 00010
SELF 00144
PAIC 04540
CURSORTV 00214
SORTTGT 01751
GRPTYPE 00022
GRDATE 01370
RAIEMH 01445
3 40167
PAYLOAD 00620
INDEX 00007
FIXRAGE 00003
INTOP 00014
GEMUG 00024
VAL 00003
FLTPASS 00005
PCALL 00002

EXTERNAL SYMBOLS

THENG
OIC10100
OIC10100
PRINTT
PRINTT
OUTTGT
INPTGT
SERIAL
DIFF
XWISOF
MARLE
STM
SLO
UNSTGL

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C00004	ALERTLY								
C01357	ATLOCH								
C00004	ATO								
C00096	ATPOIST								
C00013	ATTMILC								
CI 027	ATTLOC								
PC0576	HE6LN.	00577							
C00240	FLAT	00130	00130						
C00466	HLONG	00137	00132						
C00006	ATO	00535							
C00000	CENTLAT								
C00001	CENTLONG								
C00002	CEFF								
C00074	CEPASH								
X00010	CNGPLAN	00425	00455	00533					
C00000	CLAT								
C00007	CLENGTH								
C00001	CLONG								
C33737	CNTRVLOC								
P00550	CNVRTL	00265							
C00011	CORATTH								
C00012	CORSATTH								
P00614	COUNT.	00322	00323						
P00003	CREFT.	00274							
C00002	CZONE								
C00032	D								
C23257	DEFLAT								
C25373	DELONG								
C27507	DESIG								
P00001	DICT.								
X00011	DIFF								
C00011	DISTR	00031	00042	00046	00052	00060	00142	00165	00273
C00002	DISTIC	00346	00352	00415	00426	00436	00456	00504	00534
C00016	DISTOEF	00435							00541
C00011	DISTINK	00067	00067						
C01410	DISTLEG	00104	00195	00110	00119	00115	00115		
C01441	DISTLOW								
C12577	DISTOUT								
C14713	DISTREC								
C00062	DPLAT								
C00000	DPLINK								
C00144	DPLONG								
C01720	DREC								
C00213	DSTR								
C01667	DVALA	00070	00070	00103	00104	00107	00107	00114	00114
C01636	DVALR	00330	00330						
C00005	ELAT	00326	00334						
C00006	ELONG								
P00600	ENDING.	00032	00545	00576	00577				
P00000	EXIT.	00601							
C30053	FLAG								
C00000	FLYLOW								
P00003	FORWAT.	00035							

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FUNCTION	00027	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00021 GETISORT	00027	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00027 GETISORT	00260	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00274 GETISORT	00317	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00615 GETISORT	00434	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00001 IALM	00434	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00005 IALERT	00152	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C000310 IASM	00066	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C000873 IAVAIL	00066	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00016 IBASE	00066	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00001 ICALL	00066	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00001 ICAMFROM	00037	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00006 ICAMPLAN	00037	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00007 ICLASS	00037	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00014 ICORCAR	00037	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00017 ICORIDOR	00037	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00005 ICORR	00037	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00016 ICORRSMR	00037	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00002 ICURRAID	00043	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00001 ICURSRTY	00353	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00021 IDEBUG	00047	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00003 IDIYCM	00204	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C10463 IDPEN	00204	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00017 IDROP	00341	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00020 IDUM	00314	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00004 IEVAL	00176	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00004 IFLY	00176	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00000 IFPASS	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00000 IGROUP	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00013 IGROUPDATA	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00012 IGRPTYPE	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00021 IWT	00177	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00010 IIMDEX	00053	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00007 IINITOPT	00166	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00021 IL	00452	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00550 IMIRV	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00003 IMPORTD	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00551 IM00011-	00226	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00552 IM00010-	00406	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00003 IMDEXNO	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00374 IMDEXVEH	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00020 IMEXFLY	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
P00576 INITIAL-	00032	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
X00007 IMPOTOT	00414	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
X00041 IMIT	00324	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00001 IMR18	00175	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00008 IOTA	00033	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00000 IPASS	00167	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
CC0714 IPAYLOAD	00167	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00020 IPEMNOOE	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00005 IRAIDSMC	00000	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00017 IRECMOOF	00527	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00002 IRECOVER	00200	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537
C00006 IREFUEL	00071	00322	00444	00152	00066	00127	00142	00040	00050	00054	00157	00160	00317	00350	00536	00537

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P00634	MOROP	00312	00355	00372				
C00003	MWIT	00175	00254	00255	00254	00264	00276	00511
C00207	MOSTTGT	00513	00514	00515				00511
C00015	MPSITE							
C00300	MOROM81							
C00120	MOROM82							
C00040	MOMIT							
C00010	MORPERSON							
C00004	MPASS	00306	00306	00317	00320	00366	00417	00420
C00015	MPREDEF							
C00001	MVENH							
C00000	NT							
C00002	MJMASM	00172						
C00001	MJMO8	00171						
C00000	MUMIT	00167	00176					
C00000	NVEN							
C00002	NVENGRP							
C00002	NVENPASS							
C00210	NHOS	00144	00144					
C00133	NAPC							
C00001	NAPNS							
C00023	NAPV							
C00005	OTA	00143	00143					
C00007	OTM	00457						
X00006	OUTPOTGT	00427						
P00553	P00003.U	00345						
C00303	PLAY	00555						
C00004	PLONG	00131	00132	00137	00137			
C00021	PREATTR	00133	00133	00141	00141			
X00004	PRINTIT	00041	00045	00051	00161	00164	00351	00540
X00005	PRINTF	00057						
X00002	Q1010100	00301						
X00003	Q0001CT	00000	00030					
X00016	ONSINGL	00547						
C00001	RANGE	00103	00115	00117				
C00024	RANGEAS	00155	00155					
C00006	RANGEDEC							
C00014	RANGREF	00102	00102	00111	00112			
C00226	REFLAY	00136	00136					
C00252	REFLONG	00140	00140					
C00050	RELAS							
P00535	RELVAL	00335	00337					
C01326	HOJ							
C00212	RNGAS	00150	00156	00440	00441			
C00014	RNGDEF							
C00013	RNGE	00105	00106	00112	00113	00117	00120	
C01472	RVAL							
C01472	S							
X00015	SLO	00267						
C00013	SPOAS							
C00011	SPDM							
C00012	SPOL0							
C00003	SPF70							

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C00120 SPEEDAS*
 X00014 STM.
 P00036 SUMVAL
 C01523 SUPV
 C31623 TASK
 C00012 IOEFDIST
 C01134 TGTSPWMO
 X00001 TEND.
 C05347 TIMEPRM
 C02117 TLAT
 C04233 TLONG
 P00304 TS00001.
 P00355 TS00002.
 P00343 TS00003.
 P00470 TS00004.
 P00521 TS00005.
 P00557 UP00003.
 P00566 UP00007.
 C01275 V
 C01244 WALA
 C01213 VALB
 C01554 VALDOME
 C01605 VALON
 C00000 VALRECVR
 C01142 VOMBASE
 C00022 VPRBASE
 C00002 VUML040
 P00251 W500001.
 P00315 W500002.
 P00324 W500003.
 P00436 W500004.
 P00511 W500005.
 P00637 WY
 X00012 XMINOF
 C00007 YIELD
 00456 SYM30LS

01261
 00374

00272

00250
 00314
 00321
 00405
 00510
 00404
 00222
 00474

01467 00553 00560 00561 00562 00564 00564
 00567 00570 00371 00575 00575 00575

01462 00477 00500
 00502 00472 00473 00476 00477

00305 00305
 00356 00356
 00342 00471
 00522 00522

00063
 00503

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SUBROUTINE INITOPT
  CSUBR      INITOPT 20AUG71
  CUSE      RAINDSTRK 1FERT1
  COMMON/RAINT,JG-000P,JCOHP,INDRKM(1100),ILAT(1100),FLONG(1100),
  1 TIMEPRF(1100),IDPRF(1100),DISTOR(1100),EISTMC(1100),
  2 ATTELOC(1100),VAL(1100),DELAT(1100),VELO-G(1100),DESTE(1100),
  3 TASK(1100),CENTYLOC(1100),FLAG(1100)
  CEND
  CUSE      RAINDSTRK
  PRINTOPT  9/10/69
  COMMON/PRINTOPT/ISPTVGT,ICURSPV,ICURRAID,INSTKCPM,TEVAL,
  1 TRAIOSM,ICMPLAN,INITOPT,ILNEX,ITIGASG,
  2 IGATYPE,ICORDATA,ICORCAM,ISTKESM,ICORSMR,
  3 ICCMID04,INEXFLY,INERUG,JMEFJFL,JOUTSAT,JPAYLOA
  CEND
  CUSE      CURSRTY 9/10/69
  COMMON/CURSRTY/NUMIT,NUMOM,NUMASH,MJIT,FLY(113),IMT(113)
  1 LASTPAY,LASTTGT,COMIT,COMIT(25),NAVAL,IAVAL(25)
  2 CMHIT(25),ITOLD,LOSTTGT(25),NLOSTTGT,MCHOS,NASHS,RMGASH
  3 OSTA
  CEND
  CUSE      CURSRTY
  SORTTGT  9/10/69
  COMMON/SORTTGT/MAXPT,MPOTGT(25),VAL(25),VALN(25),VAL(25),
  1 V(25),PMJ(25),ATLCCH(25),DISTLG(25),DISLCH(25),S(25),
  2 SUPV(25),VALONE(25),VALON(25),VALB(25),VALA(25),ONECT(25)
  CEND
  CUSE      SORTY GT
  SORTY 9/24/69
  COMMON/1 TOPT/FLVLOW(3),1-PRPTD(3),1-PTDNT(3),DISTING,1-EPDIST,
  1 RNGE
  CEND
  CUSE      INITOPT 9/10/69
  COMMON/COMING/CLAT,CLONG,CZONE,PLAT,PLONG,ELAT,FLONG,CLENGTH,
  1 KREMG,CCATTE,CCORSAIT,ATTMILU,PMGNEFF,PMGNEFF,
  2 DISTING(3),PREATT(3)
  TYPE REAL CZON
  TYPE REAL WOPAN
  CEND
  CUSE      CURSRTY
  SHPTYPE 1FERT1
  COMMON/SHPTYPE/ISMTYPE,MARUF,CER,SPEED,ALPHIDLY,NALRTULY,RANGEDIC
  1 ICLASS,OPPERSON,SPRINT,SPRLO,SPRASH,PMGNEFF,PMGNEFF,INREP
  2 IRECMODE,IPENMODE,FUNCTION
  TYPE INTEGER FUNCTION
  TYPE REAL NALRTULY
  CEND
  CUSE      SHPTYPE
  SHPTYPE 9/10/69
  COMMON/SHPTYPE/GRUPP,VALS,NVEHMP,PREG,ITYPE,IALFT,REFUEL,
  1 YIELD,ISTART,MRES,INASE(150),PLAT(150),MLONG(150),
  2 IPAYLOAD(150),VORASE(150)
  TYPE INTEGER VORASE
  CEND
  CUSE      GRDATA
  GRDATA 9/10/69
  COMMON/GRDATA/VEH,NVEM(200),DISTH(200),M,VMHASE,
  1 NPV(200),APC,TGTSPPMU,NASPMV(200)
  TYPE INTEGER VORASE
  CEND
  CUSE      RAINDSTRK
  RAINDSTRK 20AUG71
  COMMON/RAINDSTRK/OPLINE(50),OPLAT(50),OPLONG(50),REFLAT(20),

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1      REFLOW(20)
CEND  DUEXREF *****
CUSE  INDEX  9/10/69 *****
COMMON/INDEX/ISORTY,ISORTY,IRECOVER,IDIYCH,IT,ICORR,JT611A
CEND  INDEX *****
DATA(IORIR=1),I(IRECOVER=2),I(IDIYCH=3)
DATA(NSPARE = 4)
CUSE  DEBUG  9/10/69 *****
COMMON/DEBUG/IOA,ICAFROM(20)
CEND  DEBUG *****
CUSE  ARAYSZ  9/10/69 *****
COMMON/ARAYSZ/MSERPG,MC,MT,ML,MSORT,MSRT,MFLY,MANPA
CEND  ARAYSZ *****
CUSE  FIRANG  9/10/65 *****
COMMON/FIRANG/CENTLAT,CENTLONG,DISTC
CEND  FIRANG *****
CUSE  DIMENSI  IFIX(20) *****
PCALL  9/10/69 *****
COMMON/PCALL/PCALL,ICALL
CEND  PCALL *****
ICATA(TOTA=1)
ICATQ(QM(TOTA)=8H INITOPT
ICALLS
CALL PRINTIT(IDEBUG)
ENTRY INITOPT
NMD=0
DO 5 IR=1,MRASE
IF(NMDS.LE.NMPSV(IR)) 4,5
4 NMD=NMPSV(IR)
5 CONTINUE
MAXPT=MAX(OF(MAXPA,NMDS,NSPARE+3)
C      SET DATA FOR SORTIE ORIGIN, RECOVER, DIYCH, AND OTHERS
DO 10 J=1,MAXPT
J=1
V(J)=0.0 $ S(J)=0.0
DISTLEG(J)=DISTLOW(J)+PREC(J)*0.0
MYPTGT(J)=0 $ DVALA(J)=IE200 $ DVALB(J)=IE200
VALA(J)=0.0 $ VALB(J)=0.0 $ ATLOC(HI)=0.0
10  RHO(J)=0.0
NPT=3 $ NMPT=0 $ NPAVAL=MAXPT-3
VALCM(IDIYCH)=0.0 $ VALDOME(IQMG)=0.0
INITIALIZE DISTANCE ARRAY TO -1 BUT WITH C(IDIYCH,J)=0.0
DO 30 J1=1,MAXPT
DO 20 J2=1,MAXPT
20  D(J1,J2)=10.0
30  C(IDIYCH,J1)=0
D(IQMG,IRECOVER)=20000
RHO(JIORIR)=0.0 $ RHOJ(IRECOVER)=IE200 $ RHOJ(IDIYCH)=2E200
C      SET ARRAY AVAL
DO 40 I3=1,NAVAL
J=3+I3-NAVAL-13
LKMIT(I3)=0
40  I(AVAL(I3)=J
NLOSTGT=0 $ IDEFOIST=0.0 $ ITOLD = 1
C      GET IMPORTANCE OF PRECORRIDOR ATTRITION IN DECREASING ATTRITION PE

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50 41 L=1.3
  IMPORT(L)=0
 41  ATPOIST(L)=PREATT(L)/DISTDEF(L)
 44  IF(NPREDEF-1) 44,42,43
 44  DO 45 L=1,3
 45  ATPOIST(L)=0
  GO TO 47
 47  IMPORT(L)=1
  ATPOIST(L)=ATPOIST(L)
  THEPDIST=DISTDEF(L)
  GO TO 47
 43  CALL ORDER(ATPOIST,IMPORT,MPREDEF)
  DO 44 L=1,NPREDEF
  THEPDIST=THEPDIST+DISTDEF(L)
 46  ATPOIST(L)=ATPOIST(L)
  SET RANGE DATA
 47  DISTIN= CLENGTH
 47  IF (JCORR -LE. 2) 470, 480
 470  CONTINUE
  IF (IREFUEL) 4701,50,50
 4701 CONTINUE
 480  DISTC=DISTP(CENTLAT,CENTLONG,ELAT,ELONG)
  IF (IREFUEL) 4801,50,48
 4801 CONTINUE
  IF (IREFUEL.EQ. -3150.51)
 48  DISTIN=DISTP(ELAT,ELONG,ELONG,ELONG)
  AND SET DIST(IB)=0 SINCE IRELEVANT
  GO 49 (R=1,NR)
 49  DISTR(IB)=0.
 50  RANGEXRANGE
  GO TO 52
 51  IF (IREFUEL.EQ.-51510.511)
 510  RANGEP,ORANGREF-RANGE
 511  RANGEXRANGREF
 52  CONTINUE
  ICALL = 161
  CALL PRINTIT(IGRDATA)
  ICALL = 162
  CALL PRINTIT(IPAINSMR)
  ICALL=26
  CALL PRINTIT(IITOPT)
  IOTA=IOTA-1
  RETURN
  END

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5.4TS INITOPT

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C

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PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

INITOPT	IDENT	INITOPT
3	00530	
PRINTOPT	00031	
CURSORTY	40167	
SORTYIGT	00025	
INITOPT	00214	
CORRIDOR	01751	
GRPTYPE	00014	
GRPDATA	00024	
RAIDSHR	00022	
DRENREF	01370	
INDEX	01445	
DEHUS	00276	
ARAYSIZ	00007	
FINANCE	00025	
PCALL	00011	
	00003	
	00002	

EXTERNAL SYMBOLS

00001
PRINTIT
ORDER
0151F
XMINOF

SATS I-IT-PT

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CC0004 IY004
 PC0117 10
 PC0150 20
 PC0156 30
 PC0061 4
 PC0214 40
 PC0231 41
 PC0244 42
 PC0253 43
 PC0240 44
 PC0243 45
 PC0271 46
 PC0274 47
 PC0301 470
 PC0304 4701
 PC0307 480
 PC0320 44
 PC0317 4801
 PC0312 49
 PC0063 5
 PC0345 50
 PC0350 51
 PC0352 510
 PC0354 511
 PC0360 52
 PC0511 4845R.
 PC0603 1100000
 PC0330 700001.
 PC0524 J
 PC0525 1
 PC0526 12
 PC0502 100-4
 CC0001 100000
 CC0023 100100
 CC0024 100100
 CC0022 100100
 CC0006 100100
 CC0010 100100
 PC0527 1
 CC0036 100100
 CC0037 100100
 CC0124 100100
 CC0156 100100
 CC0010 100100
 CC0000 100100
 CC0000 100100
 CC0001 100100
 CC0007 100100
 CC0003 100100
 CC0005 100100
 CC0004 100100
 CC0004 100100
 CC0002 100100
 CC0001 100100

00245 00252
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 00101
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 00211
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 00074
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C00005 NALRTDLY
C01135 NASAPV
C00211 NASMS
C00072 NAVAIL
C00621 NH
C00011 NHASE
C00003 NHIT
C00207 NLOSTTGT
C00015 NPPSITE
C00043 NPMIT
C00010 NPERSON
C00015 NPREDEF
C00001 NRYEM
P00027 NSPARE
C00000 NT
C00002 NUNASM
C00001 NUNROMR
C00000 NUNMIT
C00000 NVEM
C00002 NVENGRP
C00210 NVHDS
C01133 NNPC
C00001 NPPNS
C00623 NPPV
X00003 ORDR
P00414 P00002.U
P00433 P00003.U
C00003 PLAT
C00004 PLONG
C00021 PREATIR
X00002 PRIATIT
X00001 QRODCT.
C00001 RANGE
C00006 RANGEDEC
C00014 RANGEDEF
C00006 REFLAT
C00252 REFLONG
P00412 RELCON..
C01326 RMJ
C00212 RRGAS
C00014 RRGDEF
C00013 RRG
C21143 RYAL
C01472 S
C00013 SPDASH
C00011 SPOMI
C00012 SPOL
C00003 SPED
C01523 SURV
C31023 TASK
C00012 TDFNIST
C01134 TGTSPMD
C00347 TIMEPREM
C02117 TLAT

C0127	00127	00201	00202	00207	00207
C0335	00336				
C0052	00052				
C0123	00124				
C0220	00221				
C0125					
C0234	00235	00250	00241	00262	
C0065					
C0047	00050	00056	00054	00062	00064 00064
C0057	00057	00061	00061		
C0253					
C0420					
C0436					
C0231	00231				
C0043	00362				
C0000	00032				
C0045	00345				
C0353	00353	00356	00356		
C0323	00330				
C0046	00257	00365	00372	00377	00402
C0120	00121	00171	00171	00174	00174
C0046	00346	00354	00355	00357	00357
C0104					
C0022	00222	00251	00252	00266	00270 00270

C04233 TLONG
 P00064 TS00001. 00053
 P00123 TS00002. 00076
 P00163 TS00003. 00143
 P00152 TS00004. 00145
 P00220 TS00005. 00203
 P00274 TS00010. 00263
 P00345 TS00011. 00337
 P00422 UP00002. 00137
 P00440 UP00003. 00143
 P00450 UP00010. 00410
 P00461 UP00011. 00407
 P00473 UP00012. 00411
 C01275 V 00102
 C01244 WALA 00114
 C01213 WAL9 00115
 C01234 VALDOME 00134
 C01455 VALON 00132
 C01142 VCNHASE 00131
 C00622 VPMHASE 00063
 P00056 W500001. 00122
 P00140 W500002. 00164
 P00141 W500003. 00152
 P00150 W500004. 00217
 P00206 W500005. 00234
 P00227 W500006. 00245
 P00243 W500007. 00273
 P00264 W500010. 00344
 P00342 W500011. 00067
 X00035 A-180F
 C00007 VIFLO
 G0345 SY-HQLS

00162 00416 00423 00424 00425 00431 00432
 00414 00441 00442 00443 00445 00446
 00452 00453 00454 00454 00457
 00463 00464 00465 00470 00471
 00471 00475 00476 00477 00501 00501

2218

[illegible]

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C      ADDS TARGET (IX) TO JAVAIL (NAVAIL) RECORDS IN OMIT LIST
      ITX=IT $ JX=JAVAIL (NAVAIL) $ NAVAIL=NAVAIL - 1
      JX=JX+JX
      IF (MVSIGN(MVPGTGT(JX)).EQ.2) 3,4
3     MVSIG=(MVPGTGT(JX))=1
4     MVPGTGT(JX)=ITX
      MVSIGN(JX)=2
      DO 16 IDUM=MAXDT
      U(JX,IDUM)=10.0
10     D(17UM,JX)=10.0
      IF (MVAL(ITX)) 11,11,13
11     MVAL(ITX)=1
      I=CEXNOX=INDEX(C(ITX))
      PRINT 12,JGROUP,JCORR,IX,XNX
12     FORMAT(21X,40H VAL = 0000 GROUP,13,2X,40H CORR ID,13,2X,10H TARGET N
      IO,15,40H 000)
13     MVAL(JX)=MVAL(ITX)
      VALA(JX)=MVAL(ITX)+TIMEPRFM(ITX)
      ATLOC(JX)=ATRLLOC(ITX)
      RMV(JX)=RMV(ITX)
      IMFIA(JX)=IMFIA(ITX)
C     CALCULATE PCNDIST
      D(10RIS,JX)=DISTF(P,AT,PLONG,TLAT(ITX),LLONG(ITX))
      D(11ECOVES,JX)=DISTOUT(ITX)
      D(12ECJX)=DISTMEC(ITX)-DISTOUT(ITX)
      NOMIT=NOMIT+1
      I=ITINOMIT+JX $ LMITM(JX)=NOMIT
      IC=LL=05
      CALL PRINTT(15RTYIGT)
      IC=IC+1
      RMV=RMV
      END

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5.475 1910001

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INVENT INVENT

PROGRAM LENGTH	ENTRY POINTS	BLOCK NAMES
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
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98	98	98
99	99	99
100	100	100

00307	00226	00025	00007	01751	00214	04540	40167	01017	04230	00024	00025	00002
INPUTGT		PRIN1CPT	INDE4	SORTVGT	CUMSRTY	CURPAID	3	FIXALL	2	CONIDON	DEBUC	PCALL

EXTERNAL SYMBOLS

YMEMO.
 Q30C0040
 Q30I0040
 Q06DICT.
 DISYF
 PRINTY
 STM.
 QNSINGL.

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5.475 INPOTGT

C01357	ATLCCM	00141	00142		
C00013	ATTMIL0				
C11020	ATTMLOC	00140	00141		
P01267	HF6FM.	00272			
C00000	CLAT				
C00007	CLFNGTH				
C00001	CLGCG				
C33737	CNTMLOC				
P00206	CNMTL.	00124	00125	00127	
C00011	COMATTR				
C00012	COMSATTP				
P00302	COUNT.	00076	00100		
P00003	CHFT.	00132			
C00002	CZONF				
C00032	0	00102	00102	00104	00104 00161 00163 00164
C23257	DELAT				
C25373	DELOWG				
C27507	DESIG				
P00001	DICT.	00030	00121	00131	00155 00177
C00016	DISTDEF				
X00005	DISTF	00154			
C01410	DISTLFG				
C31441	DISTLOW				
C12577	DISTOUT	00161	00162	00165	
C14743	DISTREC	00164	00165		
C01720	DREC	00164	00166		
C00213	DSTH				
C00000	DUM				
C01567	DVALA				
C01636	OVALR				
C00005	ELAT				
C00006	ELGMS				
P00273	EMING.	00031	00204	00270	00271 00272
P00900	EXIT.	00275			
C34053	FLAG				
P00003	FORMAT.	00034			
P00132	G00000.	00117			
C00073	IATAIL	00041			
C00001	ICALL	00175	00175		
C00001	ICA-FBOW	00034			
C00006	ICMGLAN				
C00014	ICMCMR				
C00017	ICMIFOS				
C00005	ICOMP				
C00016	ICORSHR				
C00002	ICORRAID				
C00001	ICURSRAT				
C00021	IDERING				
C00003	IDITCH				
C10463	IOPEW				
P00303	IOUW	00072	00225		
C00004	IEVAL				
C00004	IFLY				
C00013	ICRPODAT.				

C00012 TYPE TYPE
 C00021 I-IT
 C00010 INDEX
 C00007 IN-PORT
 C00000 I-IT
 C00043 I-IT
 C00106 I-IT
 C00007 I-IT
 C00010 I-IT
 C00011 I-IT
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 C00185 I-IT
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 C00187 I-IT
 C00188 I-IT
 C00189 I-IT
 C00190 I-IT
 C00191 I-IT
 C00192 I-IT
 C00193 I-IT
 C00194 I-IT
 C00195 I-IT
 C00196 I-IT
 C00197 I-IT
 C00198 I-IT
 C00199 I-IT
 C00200 I-IT

00220 00232 00241
00277 00217 00230 00243
00160 00245 00255
00163 00244 00265
00115 00124
00114 00124

00203

00202

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SUBROUTINE MISASG
  CENQ  MISASG  11MAY71
  C  ASSIGN MISSILES TO TARGETS AND WRITE MISSILE EVENTS FOR A MAXIMUM OF
  C  SCENARIOS
  C  3  1APR71
  CUSE  COMMON/77 JG=CCOR,JCOR,INDRNO(1100),PLAT(1100),TLONGS(1100),
  1  11TOT(1100),MVAL(1100),PLAT(1100),MLONGS(1100),DESIG(1100),
  2  2TAS(1100),CNT,PLCC(1100),FLAG(1100),FTIME(14,50),FUTDATA(270),
  3  3NUMBER(30)
  CENQ  TYPE INTEGER DESIG,TASK,CNTRY,LOC,FLAG
  C  3
  C  CHANGED COMMON/77A(150) IN COMMON/77
  C  7600
  CUSE  GCRDATA  4/10/69
  C  COMMON/77B(150) NGRS,NGRS,NGRGR,ICES,ITYPE,IALERT,ITYPEFUEL,
  1  1 YIELD,ISTART,NBASE,IBASE(150),PLAT(150),MLONGS(150),
  2  2 IPAYLOAD(150),WGRBASE(150)
  CENQ  TYPE INTEGER VORBASE
  C  4000
  CUSE  GCRDATA
  C  8000
  C  GCRTYPE 1FEPT1
  C  COMMON/GRPTYPE/ISTYPE,RANGE,GR,SPEED,ALERT,ALAT,AL, RANGEDEL
  1  1 ICLASS,NORPERSON,SPDHI,SPDLO,SPDASH,NANSEF,NBPSITE,INEP
  2  2 IPECODE,IPERCODE,FUNCTION
  CENQ  TYPE INTEGER FUNCTION
  C  12000
  CUSE  GCRTYPE
  C  15000
  C  COMMON/PLANTYPE/INTTYPE,CCORSL,CCORSHR
  C  16000
  CUSE  PLANTYPE
  C  18000
  C  COMMON/PAVLOAD/ANOROMH(140),I=0(140),
  1  1 NOROMH(240),I=0(240),MAS(40),IAS(40),
  2  2 MC(40),MPCOV(140),MAGCOVS(40),T=0(40)
  CENQ  PAVLOAD
  C  2600
  CUSE  FILES 1FEPT1
  C  16000
  C  COMMON/FILES/TCFILE(2),BASFILE(2),SLTIME(2),ALOC(2),ALOC(2),
  1  1TPALOC(2),ALOCGRP(2),STORFIL(2),EVENTAPE,PLANTAPE
  C  3000
  C  TYPE INTEGER 1GTFIL,BASFILE,SLTIME,ALOC(2),ALOC(2),ALOCGRP,
  1  1STORFIL,EVENTAPE,PLANTAPE
  C  4000
  C  COMMON/INPUTEL/INTTEL,MYINDTEL
  C  5000
  CUSE  FILES
  C  6000
  C  MASTER 1FEPT1
  C  COMMON/MASTER/INDATE,ITEMNO,ISIDEM,IRPT,NCORH,NRPN,1DECOVER
  1  1INER,NANDRY,NFES,NTYPE,ASGROUP,NTOTBASE,MPAYLOAD,NASHTYPE,NMOTYPE
  2  2NTANTRAS,ACCPLEX,NCLASS,NALERT,NTST,NCCRTYPE,NCNTRY
  CENQ  MASTER
  C  7000
  C  EQUIVALENCE (ISIDE,ISIDEM)
  C  8000
  CUSE  IFTDPT  5/10/69
  C  9000
  C  IFTDPT/IFTDPT(10)
  C  1000
  C  IFTDPT
  C  2000
  C  DIMENSION MWISL(10),XSITE(10),XSTG(10),XPLAT(10),XCLONG(10),
  1  1PLTIME(10),XPLAT(10),XCLONG(10),XPLAT(10),XCLONG(10),XDESIG(10),
  2  2XTASK(10),XCNTRYLOC(10),XCLANG(10)

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EQUIVALENCE (INTDATA(19),*ISL(11)), (INTDATA(17),*KSITE(11)),
1 (INTDATA(55),*TUTIND(11)), (INTDATA(73),*KOLAT(11)), (INTDATA(91),
2 *LONG(11)), (INTDATA(109),*FLTIME(11)), (INTDATA(127),*BLAT(11)),
3 (INTDATA(145),*LONG(11)), (INTDATA(163),*LAT(11)), (INTDATA(181),
4 *LONG(11)), (INTDATA(199),*KDESGN(11)), (INTDATA(217),*RTASK(11)),
5 (INTDATA(235),*CENTRY(11)), (INTDATA(253),*KFLAG(11))
6 DIMENSION MISARR(10,10)
7 EQUIVALENCE (MISARR(1),INTDATA(19))
8 COMMON/PCALL/PCALL,ICALL
9 TYPE INTEGER *UNLIST, SIDE, TABLIST
10 DATA (LRC=270)
11 DIMENSION OUTS(150), INTDATA(270)
12 EQUIVALENCE (INTDATA,INTDATA)
13 COMMON/ITP/ITP
14 COMMON/ISKPTO/ISKPTO
15 COMMON/MISPRN/LCALL,MFVS
16
17 C DIMENSION LFI=ISS (1000)
18 TYPE LOGICAL LFI=ISS
19
20 C LFI=ISS FIXED ASSIGNMENT INDICATOR
21
22 C DATA (TAG=FT = 100000000), (MASK=77777777)
23 C IPRMT IS USED TO EXTRACT ISTART FROM VOMBASE
24 C MASK=0 IS USED TO EXTRACT NUPB FROM VOMBASE
25
26 IF (IGROUP.GT.200113.20)
27   10 INTDATA(16)=IPRMT
28   IF (*STARFIL(1))
29     CALL PDARRAY (INTDATA,LRC)
30     RETURN
31
32 20 CONTINUE
33   IF=INOTFL
34   CALL PDARRAY (INT,3)
35   IF (LFI.GT.1000)30,40
36   PRINT 35,AT
37   35 FORMAT(30H TOO MANY TARGETS IN MISARR, *IS)
38   CALL ARCRY
39   CONTINUE
40
41 DO 50 M=1,320,110
42   CALL PDARRAY (INGENR(M),*T)
43
44 50 CONTINUE
45   CALL PDARRAY (VALONZ)
46   CALL PDARRAY (BLAT,NT)
47   CALL PDARRAY (BLONG,NT)
48   LOGICAL (INT-1)/32)+1
49   CALL PDARRAY (LFI=ISS,LLLOGICAL)
50   CALL PDARRAY (DESIGN,NT)
51   CALL PDARRAY (TASK,NT)
52   CALL PDARRAY (CENTRY,LOG,NT)
53   CALL PDARRAY (FLAG,NT)
54   MAXSTOR=10
55   IF (ISKPTO-IGROUP)70,70,60
56
57 60 RETURN
58 IF (IGROUP.EQ.IGROUP)90,80
59
60 CONTINUE

```


[illegible]

PIN5.5

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```

480 CONTINUE
  DELAY=ALERTDLY
  IF (IALERT.EQ.11500.490
490 DELAY=NALRTDLY
500 CONTINUE
  EVTDATA(4)=DELAY+DFSLNCH
  LL=IFVT
  LK=INDAS
  ICALL=121
  CALL PRINTIT(22)
  ITO = SIKKFI
  CALL MARRAY(EVTDATA,LOC)
  DO 280 I=1,11
    DO 270 J=1,NTGTE
      270 WISAP(J,I)=0
    280 CONTINUE
    IF (MOD(.65*NDP)/200,200
      290 NDPS=0
    300 CONTINUE
    PRINT 310,NDPS,NTGTE,NTGTE,IGROUP,AMPNS
    310 FORMAT(15,4H OF 15,11H MISSILES USED ON 15,4H OF 15,
      117H TARGETS IN GROUP,14,11H, NDPS = ,15)
    RETURN
  END

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152000
153000
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5.4TS MISASGN

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IPENT MISASGN

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

MISASGN	IPENT
3	01341
GRDATA	00263
GRTYPE	40167
PLANTYPE	01370
PAYLOAD	00022
FILES	00003
INPUTFL	00620
MASTER	00002
IFIPENT	00027
PCALL	00612
ITP	00062
ISKIP10	00001
MISPRNT	00000
	00003

EXTERNAL SYMBOLS

THEND.
03000040
03010040
080010.
WRAPRAY
RDAPRAY
ANGPT
POSIT
DISUF
PRINTIT
F-ONE
STM.
ONSTNGL.

SATS WISASCA

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R

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X00007	ADDT	00322	00414						
C00004	ALC-TRLY	01127	01127						
C00012	ALOCGRP								
C00004	ALOCSTAR								
C00002	ASFILE								
P01254	BEIN.	01256							
C00240	BLAT	00775	01014	01021					
C00466	BLONG	00777	01014	01021					
C00002	CEP								
C23257	CNTWLOC	00370	00664	01027					
P01224	CNTWTL.	00317	00411	00577	00601	00502	00444	00755	00757 01211 01212 01213
		01214	01214	01217					
C00002	COP-OR								
C00001	COR-CL	01125	01125						
P01271	COUNT.	00427	00430						
		01111	01165	00445	00503	00504	00521	00522	00765 00766 01110
P00130	C-F-T.	00322	00414	00605	00647	00762	01222		
P01272	DELAY	01130	01135	01136					
C17027	DESIE	00362	00662	01025					
F01273	DESINCH	01123	01126	01137					
P00001	GCT.	00265	00277	00305	00314	00321	00323	00331	00337 00342 00345 00356
		00361	00364	00367	00372	00406	00413	00415	00574 00604 00641
		00646	00715	00735	00752	00761	01020	01057	01147 01154 01206 01221
X00011	DISIF	01017							
C12577	DLAT	00343	00460	00660	01006				
C14713	DLONG	00346	00661	00661	01007				
C31731	DUP								
P01257	ENJING	00266	00301	00400	01222	01254	01255	01255	
C00016	EVENTAPE								
C31313	EVNTATA	00300	01137	01140	01155				
P00009	EXIT.	01261							
C25373	FLAG	00373	00665	01030					
P01274	FLGTWIN	01105	01113	01124					
C31467	FLTIME	01024	01024	01112					
P00130	FORMAT.	00272	00454						
C27507	FTPE								
C00021	FUNCTION.								
P00322	GG00000.	00312							
P00414	GG00001.	00404							
P00605	GG00002.	00572							
P00647	GG00003.	00637							
P00762	GG00004.	00750							
P01222	GG00005.	01204							
P01275	I	00477	00504	00515	00522	00614	00620	00672	01157 01172 01234
C00005	IALERT	00472	00472	01131	01131				
C00310	IAS.								
C00012	IRASE	00716	00717	01061	01061				
C00001	ICALL	01145	01145						
P01276	ICANUSE	00613	00627	00634	00634	00652			
C00007	ICLASS								
C00001	IDENTRO								
P01277	IEVT	00706	01070	01071	01141				
P01300	IF	01104	01110						
C00000	IFTPONT								

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	12/10/71	00461	00461	00576	00576	00643
C00000 IGRQUP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00000 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00050 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01225 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01301 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00003 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01254 INITIAL	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00000 INATSTR	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00000 INATSTR	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00347 INOT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01302 INOT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00000 IPASS	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00714 IPAYLOAD	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00020 IPENCODE	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00017 IRECODE	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00006 IREFUEL	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00002 IREF	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00016 IREP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01226 IREFT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00002 IREFT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00002 IREFT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00000 ISITYPE	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01303 ISIT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01304 ISIT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01305 ISIT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00000 ISKIP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00010 ISKIP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00010 ISKIP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01307 IT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01310 IT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01311 IT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00000 ITP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00004 ITP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C01313 ITP	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00050 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
C00170 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P01312 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00272 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00424 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00431 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00441 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00447 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00452 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00457 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00461 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00510 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00512 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00530 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00674 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	
P00302 IWDAT	00267 00267	00370 00370	00461 00461	00576 00576	00643 00643	

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EN

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P07743	.200	00742	01174		
P07750	.202	00747	00747		
P07762	.205	01063			
P07734	.210				
P01631	.220	01062			
P01653	.240				
P01643	.254	01041	01042		
P01645	.254	00742	01051	01052	
P01664	.250				
P01167	.273				
P01172	.246				
P01177	.200	01174			
P03312	.30				
P01291	.300				
P03324	.40	00314	00311		
P01115	.440				
P01117	.450	01114	01114		
P01122	.460				
P01124	.470	01121			
P01127	.480	01123			
P01134	.490	01132			
P07333	.50				
P01136	.500	01133			
P00490	.50				
P00534	.500	00533			
P00440	.410	00553	00554	00563	
P07555	.620				
P00491	.70	00377	00377		
P00545	.700	00533			
P00572	.710				
P00606	.720	00571	00571		
P00627	.730	00424	00434		
P00633	.740	00632			
P00637	.750	00635	00635		
P00650	.740	00632			
P00472	.770	00226			
P00404	.80	00403			
P00416	.90	00403			
P01263	1.00	00351	00353	00545	00712
P01130	1.10	00772			
P00153	1.100001	00495			
P00220	1.203	00753			
P00233	1.310	01217			
P00131	1.310	01315			
P00154	1.711	01575			
P00201	1.751	00642			
P00141	1.845	00407			
P01262	1.85111111	00436	00547	00547	
P00332	2.000001	00327			
P01021	2.000002	01013	01013	01014	
P01313	J	00544	00550	00557	00621
C00002	JCOW				
C00001	JGCHIP	07401	00401		
P01314	JF	00402	00445		

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12/10/71 EC 2 PAGE NO. 12

12/10/71	EC	2	PAGE NO.	12
P01331 TRYS	00737	00741	00744	00763
C00000 NT	00304	00307	00307	00316
	00362	00365	00370	00373
	00612	00612	00744	00746
C00020 NISAPAS	01045	01046	01077	01164
P01332 NIGTF	00475	00617	01214	
P01333 NIGTF	00700	01065	01066	1213
C00024 NIGTS	00535	00652	00607	0611
P01334 NIGTF				
P01335 NIGTF				
C00014 NIGTF				
C00012 NIGTF				
C00002 NIGTF				
C00017 NIGTF				
P01336 NIGTF	00727	01047	01050	01175
P01337 NIGTF	00725	01051	01175	
C00001 NIGTF	01217			
P01340 NIGTF	00476	00510	00511	00531
P00003 NIGTF	01231			
P01224 NIGTF	01244			
P01242 NIGTF	00734			
C00017 NIGTF	01146			
X00012 NIGTF	00624	00430	00660	
X00002 NIGTF	00670	00264		
X00003 NIGTF	00000			
X00004 NIGTF	01223			
X00015 NIGTF				
C00001 NIGTF				
C00006 NIGTF	00304	00330	00330	00341
C00014 NIGTF	00340	00457	00657	
X00006 NIGTF				
C10463 NIGTF				
C00013 NIGTF	01023	01023		
C00012 NIGTF	00313	00405	00573	00640
C00003 NIGTF	00274	00274	01151	01151
X00014 NIGTF	00364	00463	00683	01024
C21143 NIGTF				
C00000 NIGTF	00320	00412	00603	00645
X00001 NIGTF	00654	00654	01010	01015
C02117 NIGTF	00654	00654	01011	01016
C02233 NIGTF				
C00010 NIGTF	00424			
P00434 NIGTF	00444			
P00452 NIGTF	00502			
P00513 NIGTF	00520			
P00531 NIGTF	00616			
P00674 NIGTF	00703			
P01202 NIGTF	00764			
P01033 NIGTF	01107			
P01120 NIGTF	01164			
P01172 NIGTF				

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001233	W666672.	00500
P01266	P090906.	01241
C01142	VC0045E	01547
C31511	FLAT	00523
C31533	4LONG	00774
W66006	PARRY	01000
X60004	S00001.	00276
P00431	S00002.	00335
P00431	S00003.	00423
P00447	S00004.	00451
P00455	S00004.	00512
P00453	S00005.	00530
P00517	S00006.	00675
P05704	S00007.	01203
P00747	S00010.	01032
P00112	S00011.	01117
P00151	S00012.	01174
P01167	S00013.	01171
C31423	4LAT	01007
C31445	4LONG	01016
X00013	4RCOF	00543
C31555	4LAT	01011
C31577	4LONG	01012
C00607	YLONG	

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SUBROUTINE NEXTFLT(JCOPR,ISIDE)
  CSUBR  NEXTFLT 54PRT1 *****
  C DELIVERS JR FOR NEXT FLIGHT AND TAILS IN FLT -- IF SPLIT EQ. 1. -
  CUSE  SUBDATA 9/10/69 *****
  COMMON/GRDATA/IGROUP,NUMPRS,NUMGRD,IREG,ITYPE,IALFRI,IREFUEL,
  1 YTEL,ISTART,IBASE,IBASE(150),BLAT(150),BLONG(150),
  2 IPAYLOAD(150),VONBASE(150)
  TYPE INTEGER VONBASE
  CEND  GRDATA *****
  CUSE  PRINTOPT 9/10/69 *****
  COMMON/PRINTOPT/ISRTYGT,ICURSPY,ICURMATD,INSTCPC,IEAL,
  1 TRAPSHR,ICMPLAN,INITOPT,INDEX,ITGASGN,
  2 IERTYPE,IGRDATA,ICORCAR,ISIXSUM,ICUMSHR,
  3 ICORIMP,INEXTFLI,IDERUG,JREFUEL,JOUTSRT,JAYLNA
  CEND  PRINTOPT *****
  CUSE  NEXTFLT 9/10/69 *****
  COMMON/NEXTFLI/TAILS,JWSPLIT,KRLLA
  CEND  NEXTFLI *****
  CUSE  KEYS 9/10/69 *****
  COMMON/KEYS/KEYSTART,KEYPHASE
  CEND  KEYS *****
  CUSE  PRINTSHR 9/10/69 *****
  COMMON/PRINTSHR/AVEH,MOVEM(200),DIST(200),NR,VPHASE,
  1 NAPA(200),NAPC,TSISPEMD,NASMDV(200)
  TYPE INTEGER VPHASE
  CEND  PRINTSHR *****
  CUSE  DEMIG 9/10/69 *****
  COMMON/DEMG/ITA,ICAMFMD(120)
  CEND  DEMIG *****
  CUSE  DCALL 9/10/69 *****
  COMMON/PCALL/TPASS,ICALL
  CEND  PCALL *****
  IOTA=IOTA+1
  ICAMP=CMV(IOTA)=BM NEXTFLT
  ICALL=21
  CALL PRINTIT(IREG)
  IF (JCOPR.EQ.2) 1, 10
  1 GO TO (10,3) ISIDE
  C JR IS EXTERNAL CURRENT HASE INDEX
  C KE IS MARKED FOR SIDE 2
  C KE IS MARKED FOR SIDE 1
  C IF IS INTERNAL NEXTFLT INDEX
  3 I=20
  4 IF (MOVEM(I)).EQ.015,6
  5 I=I+1
  6 IF (I.EQ.0) 01,4
  7 IF (I.EQ.0) 01,4
  8 KE=1 & JHEAT = 50 TO 30
  10 I=I+1
  11 IF (MOVEM(I)).EQ.0120,25
  20 I=I+1
  21 IF (I.EQ.0) 01,11
  25 KE=1 & JHEAT
  30 CONTINUE
  VPHASE = ICMT(KE,VPHASE,J,VONBASE)
  CPRINT=1,7-SPLIT
  IF (I=VEH(I)-1).EQ.0,ITHEVPHASE) 40,50

```


FTNS.5

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DATE - 0. 2

```

40 UNTILS=OVER(1)
50 TO 70
50 UNTILS = (OVER-10) + 10/2
60 TO 70
60 UNTILS=1
60 UNTILS=1
60 UNTILS=1
70 CALL P2
70 UNTILS=1
80 UNTILS=1
90 UNTILS=1
100 UNTILS=1
110 UNTILS=1
120 UNTILS=1
130 UNTILS=1
140 UNTILS=1
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760 UNTILS=1
770 UNTILS=1
780 UNTILS=1
790 UNTILS=1
800 UNTILS=1
810 UNTILS=1
820 UNTILS=1
830 UNTILS=1
840 UNTILS=1
850 UNTILS=1
860 UNTILS=1
870 UNTILS=1
880 UNTILS=1
890 UNTILS=1
900 UNTILS=1
910 UNTILS=1
920 UNTILS=1
930 UNTILS=1
940 UNTILS=1
950 UNTILS=1
960 UNTILS=1
970 UNTILS=1
980 UNTILS=1
990 UNTILS=1
1000 UNTILS=1

```

43000
43000
43000
43000
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43000
43000
43000
43000
43000

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5.4TS NEXTFLY

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

NEXTFLY
GMPDATA
PRINTGPT
NEXTFLY
KEYS
RAIUSHE
UEHUP
PCALL
EXTERNAL SYMBOLS
G1004100
G1002100
GMCOTCT.
PRINTTT
IGET

00173
01004
01370
00025
00005
00002
01405
00025
00002

INFLY *NEXTFLY

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EO

PAGE NO.

3

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5.4TS NEXTFLY

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P00127	REGIN.	00147	00155	00161			
C00240	ALAI						
C00466	ALOG						
P00170	CAIN	00072	00073		00132	00133	
P00001	CHCI	00004	00017	00064	00122	00130	
C00311	DISTA						
P00150	ENDING.	00007	00126	00127	00130	00130	00131
P00009	EXIT.	00153					
P00003	FORCAT.	00012					
P00021	FR00001.	00141	00142				
P00024	FR00002.	00145	00106				
P00164	GETEL.	00134	00143				
P00154	GETPU.	00137	00140				
C00005	IALERI						
P00171	IP	00030	00031	00035	00036	00037	00042
		00040	00076	00102	00106	00046	00047
C00012	IRASE						
C00001	ICALL	00015	00015	00117	00120		
C00001	ICAMPROM	00014					
C00006	ICMGLAL						
C00014	ICMFCAR						
C00017	ICORICOR						
C00016	ICOWDSMP						
C00032	ICUPAATC						
C00001	ICUSWATY						
C00021	IDERUS	00026					
C00004	IEVAL						
R00305	IGET	00053					
P00172	IGOTIN.	00025					
C00000	IG-OLUP						
C00013	IGORATA						
C00012	IGPRTYPE						
C00010	IINDEX						
C00007	IINITOPT						
C00020	INEXTFLY	00123					
P00127	INITIAL.	00007					
C00000	IGIA	00010	00010	00011	00013	00124	00125
C00000	IPASS						
C00014	IPAYLOAD						
C00005	IPALNSMR						
C00006	IPREFUEL						
C00003	IRFC						
C00003	ISYKCPW						
P00003	ISICE	00024					
C00000	ISPIYIGI						
C00010	ISTART						
C00015	ISTAKSUM						
C00011	ITGTASGN						
C00004	ITYPE						
P00024	.1	00022					
P00045	.10	00023	00026				
P00047	.11	00056	00057				
P00053	.20	00051					
P00060	.25	00052					

PO0027 .3					
PO0063 .39	00044				
PO0031 .4	00040				
PO0102 .40					
PO0035 .5	00033				
PO0104 .50	00101				
PO0042 .6	00034				
PO0115 .60	00040	00057			
PO0117 .70	00104	00114			
PO0165 .ERASE	00111				
PO0003 .100000	00012				
CO0001 J	00044	00055			
PO0003 JCGW	00021				
CO0023 JOUTSPY					
CO0024 JPAYLOAD					
CO0022 JEFFUEL					
CO0003 KR	00027	00043	00043		
CO0000 KEYSTARI					
CO0001 KEYBASE	00045				
CO0004 L	00045	00061	00061		
CO0135 M4S-PV					
CO0021 NB	00054				
CO0011 M4SE					
PO0004 NEXTFLY	00004				
CO0001 NAVEM	00032	00050	00100	00107	00107
CO0000 N-TAILS	00104	00113	00115	00116	
CO0000 NEM					
CO0002 NVFMGRP					
CO0133 N-PC					
CO0001 N-PS					
CO0023 N-PV					
PO0143 PF0002	00140				
PO0147 PF0003	00144				
X00004 PRAIIT	00014	00121			
X00002 S1002100	00077				
X00001 S1004100	00074				
X00003 GADICT	00000	00005			
CO0002 SPLIT	00071	00073			
CO0134 TGTSPWQ					
CO0142 VOBASE	00064				
CO0022 VPRASE	00067				
CO0007 VIELN		00075	00075	00075	
00137 SYMPLS					

STATS ACCORD

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2

IDENT ACCORD

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00070

00003

NOCTUR

01445

RAI SPL

00024

COM-ICOR

00007

PULLIE

01370

GHE STS

00167

3

00003

FIR-NAME

EXTERNAL SYMBOLS

DEPTCT.

CEATGIR

INT-IP

UISL

5.4.15 -00000

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ED

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C00013	ATTN-LOC				
C17027	-CLAT	00012	00040		
C00000	-CLOC	00013	00041		
C00001	-CLOC	00068			
C00004	-CLOC	00011	00044	00044	
C00000	-CLAT	00045	00052		
C00001	-CLAT	00012	00044	00044	
C00006	-CLOC	00047	00052		
C00007	-CLOC				
C00008	-CLAT				
C00001	-CLOC	00007	00014		
X00002	-CLOC	00031	00032		
C00000	-CLAT				
C00007	-CLOC	00037	00034		
C00001	-CLOC				
C00011	-CLOC				
C00012	-CLOC				
P00073	-CLOC	00042	00043		
C00002	-CLOC				
C23257	-CLAT				
C25373	-CLAT				
C27507	-CLAT				
P00001	-CLAT	00005	00010	00015	00051
C00311	-CLAT	00054	00054		00057
C00002	-CLAT	00062	00062		
C00016	-CLAT				
X00004	-CLAT	00050	00056		
C12577	-CLAT				
C14713	-CLAT				
C00005	-CLAT				
C00004	-CLAT	00004	00063	00064	
P00000	-CLAT	00067			
C00004	-CLAT	00022	00022		
C30053	-CLAT				
P00074	-CLAT	00037	00043		
C00005	-CLAT				
C00012	-CLAT				
C10063	-CLAT				
C00000	-CLAT				
C00010	-CLAT	00034			
C00003	-CLAT				
P00064	-CLAT	00004			
X00003	-CLAT	00023			
C00714	-CLAT				
C00006	-CLAT				
C00003	-CLAT				
C00010	-CLAT				
C00004	-CLAT				
P00050	-CLAT				
C00002	-CLAT				
C00001	-CLAT				
C00010	-CLAT				

5-4TS 400M2

CO1135	445-08			
CO1621	44		00040	00040
CO0911	44ASE	00011		
PO1003	40CORP	00003		
CO1015	40PEDEF	00034		
CO0001	40VEH			
CO0000	41	00014		
CO0000	41VEH			
CO0002	41FEMGP			
CO1133	41PC			
CO0001	41PNS			
CO0623	41PV			
CO0004	41AT	00025		
CO0006	41ONG	00026	00027	
CO0003	41AT	00025	00026	
CO0004	41ONG	00027	00030	
CO0021	41EATP			
CO0001	41EICT	00000	00004	
CO0014	41GDF			
CO1143	41AL			
CO1623	41SK			
CO0002	41LAT	00017	00030	00031
CO0003	41ONG	00020	00032	00033
CO1134	41SPWMC			
CO0347	41SPWEL	00014		
CO2117	41AT	00017		
CO0233	41ONG	00041		
PO0056	41S0001			
CO1142	41WMAF			
CO0622	41WMAF			
PO1044	4500001	00054		
CO0007	41ELD			
00124	41L00LS			

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```

SUBROUTINE OPTJAIN
  CSURR      OPTRAID  9/10/69  *****
  CUSE      PRINTPT  9/10/69  *****
  COMMON/PRINTPT/ ISRTYGT,ICURSHY,ICURHID,ISSTKCPM,FEVL,
1  IRAIDSM,ICGEMPLA,INTTOT,INDEX,ITGASOM,
2  ISRTYPE,ICRDATA,ICACAR,ISLPSUM,ICOMASHR,
3  ICNIDON,INEXFLT,INERUG,JREFUEL,JOUISRT,JPAYLOA,
  CEND      PRINTPT *****
  CUSE      INDEX  9/10/69 *****
  COMMON/INDEX/ISORTY,IOPI,INECOVEK,INTCH,IT,ICORR,JTGLIN
  CEND      INDEX *****
  CUSE      RAIDSHR 9/10/69 *****
  COMMON/RAIDSHR/NVEM,NRVEH(200),DISTC(200),NR,VBASE,
  NUPV(200),NUPC,IGTSPHNO,NASPHY(200)
  I TYPE INTER VPRBASE
  CEND      RAIDSHR *****
  CUSE      FLTPASS 9/10/69 *****
  COMMON/FLTPASS/IFPASS,JVENLO,JVENHI,NVENPASS,NPASS
  CEND      FLTPASS *****
  CUSE      DERUG  9/10/69 *****
  COMMON/DERUG/TOTA,ICAMFROM(20)
  CEND      DERUG *****
  CUSE      DERUG  9/10/69 *****
  PCALL *****
  CEND      PCALL *****
  CUSE      PCALL  9/10/69 *****
  COMMON/PCALL/IFPASS,ICALL
  CEND      PCALL *****
  IOTA=IOTA+1
  ICAMFROM(TOTA)=EM OPTRAID
  ICALL=22
  CALL PRINTIT(INERUG)
  C*** CALL FIRST PROGRESS SORTIES FORWARD
  CALL INTTOT
  IPASS=1
  DO 10 ISRT=1,NVENPASS
    ISORTY=ISRT
    CALL SETFLAG
    CALL GETSORT
    CALL SORTOPT
    CALL QUMPSRT
  10 ICALL=23
  CALL PRINTIT(I-STKCPM)
  CALL THEN REVERSE ORDER
  IPASS=2
  CALL TIMEV(3)
  DO 20 IDUM=1,NVENPASS
    ISORTY=1+NVENPASS-IDUM
    CALL SETFLAG
    CALL GETSORT
    ICALL=135
  20 CALL PRINTIT(I-STKCPM)
    CALL SORTOPT
    ICALL=136
  30 CALL PRINTIT(I-STKCPM)
    CALL OUTSRT
    ICALL=137
  40 CALL PRINTIT(I-STKCPM)
    CALL REFAGRT

```

FTNS.5

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ICALL=138
CALL PRINTIT(I-STKCPM)
CALL RUMPSAT
ICALL=139
CALL PRINTIT(I-STKCPM)
20 CONTINUE
CALL TIMEP(4)
ICALL=24
CALL PRINTIT(I-STKCPM)
ICALL=75
WRITE(10,10.0)
1012=1012-1
RETURN
END

43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000

5.415 CPTMAID

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

CPTMAID

PMINTOPT

INDEX

RAIDSWR

FLTPASS

DEHNG

PCALL

EXTERNAL SYMBOLS

GRADICT.

PRINTIT

INITOPT

SETFLAG

GETSORT

SORTOPT

DUMPSRT

TIMEAL

OUTS-T

REF#40RT

PRATE

IDENT

00141

00004

00025

00007

01445

00006

00025

00002

CPTMAID

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EC

0

PAGE NO.

3

STATUS	OPTRAIN	00150	00151	00152	00153	00154	00155	00156	00157	00158	00159	00160	00161	00162	00163	00164	00165	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176	00177	00178	00179	00180	00181	00182	00183	00184	00185	00186	00187	00188	00189	00190	00191	00192	00193	00194	00195	00196	00197	00198	00199	00200	00201	00202	00203	00204	00205	00206	00207	00208	00209	00210	00211	00212	00213	00214	00215	00216	00217	00218	00219	00220	00221	00222	00223	00224	00225	00226	00227	00228	00229	00230	00231	00232	00233	00234	00235	00236	00237	00238	00239	00240	00241	00242	00243	00244	00245	00246	00247	00248	00249	00250	00251	00252	00253	00254	00255	00256	00257	00258	00259	00260	00261	00262	00263	00264	00265	00266	00267	00268	00269	00270	00271	00272	00273	00274	00275	00276	00277	00278	00279	00280	00281	00282	00283	00284	00285	00286	00287	00288	00289	00290	00291	00292	00293	00294	00295	00296	00297	00298	00299	00300	00301	00302	00303	00304	00305	00306	00307	00308	00309	00310	00311	00312	00313	00314	00315	00316	00317	00318	00319	00320	00321	00322	00323	00324	00325	00326	00327	00328	00329	00330	00331	00332	00333	00334	00335	00336	00337	00338	00339	00340	00341	00342	00343	00344	00345	00346	00347	00348	00349	00350	00351	00352	00353	00354	00355	00356	00357	00358	00359	00360	00361	00362	00363	00364	00365	00366	00367	00368	00369	00370	00371	00372	00373	00374	00375	00376	00377	00378	00379	00380	00381	00382	00383	00384	00385	00386	00387	00388	00389	00390	00391	00392	00393	00394	00395	00396	00397	00398	00399	00400	00401	00402	00403	00404	00405	00406	00407	00408	00409	00410	00411	00412	00413	00414	00415	00416	00417	00418	00419	00420	00421	00422	00423	00424	00425	00426	00427	00428	00429	00430	00431	00432	00433	00434	00435	00436	00437	00438	00439	00440	00441	00442	00443	00444	00445	00446	00447	00448	00449	00450	00451	00452	00453	00454	00455	00456	00457	00458	00459	00460	00461	00462	00463	00464	00465	00466	00467	00468	00469	00470	00471	00472	00473	00474	00475	00476	00477	00478	00479	00480	00481	00482	00483	00484	00485	00486	00487	00488	00489	00490	00491	00492	00493	00494	00495	00496	00497	00498	00499	00500	00501	00502	00503	00504	00505	00506	00507	00508	00509	00510	00511	00512	00513	00514	00515	00516	00517	00518	00519	00520	00521	00522	00523	00524	00525	00526	00527	00528	00529	00530	00531	00532	00533	00534	00535	00536	00537	00538	00539	00540	00541	00542	00543	00544	00545	00546	00547	00548	00549	00550	00551	00552	00553	00554	00555	00556
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[illegible]

2251

5.ATS OUTPUT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IDENT OUTPUT

00130
00020

OUTPUT

PRJ.TOPT

CHGELAN

CURS:RTV

CURS:RTV

SOMTYTGT

DEBIT-

00025

EXTERNAL SYMBOLS

THEIR.

OMONICT.

STM.

ANSI.GL.

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ED

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[illegible]

2257

PTMS.S

ICIASInfo-1
REFUOK
END

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5

134000
139000
140000

2259

12/18/71

EO

P

PAGE NO.

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INENT OUTSAT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

PHOTOPT	00007
PHNTE	00013
CR034	00024
CRPTATA	01370
SAPTYPE	00022
PLATTYPE	00003
COAR-IDC0	00024
3	40167
SOOTVGT	01751
CUMSUMTY	00214
PAIDSHR	01445
FLTPASS	01005
CUMRID	44540
INDEX	00007
INITWT	00014
OUTSAT	00221
FILES	00020
IMPUFL	00002
ITP	00001
IFT00AT	00012
IFTM	00001
DEBAC	00025
PCALL	00002
IDU00	00005

EXTERNAL SYMBOLS
 GRADICT.
 POINTIT
 FINFLT
 WORKWAY
 AMOYT

C12577	DISCOUNT	00205	00307	00310	00335	00365
C14713	DISCOUNT	00206	00311	00312	00336	00366
C00017	DISCOUNT	00207	00313	00314	00337	00367
C00052	BLAT	00223	00223	00401	00401	
C00064	BLMAG					
C01720	PREC					
C00110	RSIS					
C00213	DATA					
C00204	STILO-1					
C00205	STILO-2					
C00206	STILO-3					
C01667	OVALA					
C01634	OVALA					
C00030	OVALO					
C00005	FLAT					
C00006	ELONG					
P00444	ENGINE	00016	00440	00441	00442	00442
C00016	EXEYAPF					
P00000	EXIT	00444				
X00003	FINELY	00162				
C00053	FLAG	00320	00321	00322	00342	00372
C00146	FLG	00212	00321	00321	00327	00351
C00000	FLYLOW	00321	00175	00250	00250	00344
P00004	FORMAL					
C00007	FSTATH					
C00021	FUNCTION					
C00014	HAFTIVE	00174	00174	00251	00252	00250
P00445	I	00353	00174	00180	00187	00186
C00005	IALEST	00165	00134	00180	00187	00186
C00073	IAVAIL	00165	00134	00180	00187	00186
P00441	IA	00056	00054	00054	00054	00054
C00012	IBASE	00056	00054	00054	00054	00054
C00001	ICALL	00054	00054	00054	00054	00054
C00001	ICAP	00024	00024	00410	00410	00410
C00006	ICAP	00023				
C00007	ICASS					
C00014	ICAP					
C00017	ICAP					
C00014	ICAP					
C00014	ICAP					
C00002	ICAP					
C00001	ICAP					
C00014	ICAP					
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C00000	ICAP					

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STOPS	DATE	NO	PAGE NO.	10
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5.4TS

POSTY

PROGRAM LEADER

ENTRY POINTS

ALOCK NAME

EXTERNAL SYMBOLS

WOSIT

3

TEMP
OBJECT
SYM
OUST-EL

00152

00013

00107

TEMP

POSTY

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EC

0

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5.ATS

POSIT

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C10453 DESIGL
R00003 ST- 0003
C21143 TASC
R00001 T-0000 00046
C02117 ILAT
C04233 TLON
R00051 T500001 00023
R00024 S000001 00052
00077 SYMOLS

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ED

0

0162 100

5.415 PRERAID

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ED

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IDENT PRERAID

PROGRAM LENGTH
E Y POINTS
BLOCK NAMES

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00024
PRINTOPT 00025
CORRCHAR 01131
MASTER 00027
GPRDATA 01370
KEYS 00002
GRPTYPE 00022
STKSUM 00041
PAYLOAD 00020
IFTDAT 00012
ITP 00001
FILFS 00020
INPUTEL 00002
RAIUSHR 01445
OPENREF 00274
ARAYSIZE 00011
DEBUS 00025
PCALL 00002

EXTERNAL SYMBOLS

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01010100
0000100
PRINTIT
KEYMAKE
PONTF
IGET
GENAID
STM.
OWSINGL.

2274

5.415 PHERAT.

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C00004 ALERTONLY
 C00012 ALLOCAP
 C00006 ALCTIA
 C00016 ALTCORW
 C00076 ALTWQUE
 C00054 ATTWSUPP
 C00002 AFSFILE
 P00222 AFFSIM.
 C00240 ALAT
 C00004 ALONG
 C00002 CEP
 P00221 COWTIL
 P00240 COUNT.
 P00004 CREF.
 C00322 CULFATH
 C00644 DEFPOST
 C00550 DEFMANEF
 P00001 DICT.
 C00311 DISTR
 C00062 DPLAT
 C00000 DPLINK
 C00144 DPLONG
 P00224 EXPLING
 C00226 EXPLAT
 C00264 EXPLONG
 C00016 FVETAPE
 P00000 EXIT.
 P00004 EXWAT.
 C00021 FUNCTION
 P00011 GEMWALG
 P00152 GEMWALG
 C00512 MILGATH
 C00005 IALERT
 C00310 IASW
 P00241 ILL
 C00012 IMAEF
 P00242 IC
 C00001 ICALL
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 C00007 ICLASS
 C00014 ICONFCA
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5.4TS PREAIN

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C00074	PCZONE			
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X00003	Q1010100	00202		
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X00013	Q-SINGL.	00220		
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C00014	RANGDEF			
C00226	REFLAY			
C00232	REFLOWG			
C00132	RPLAT			
C00170	APLONG			
C00013	SPDASH			
C00011	SPDMI			
C00012	SPDLN			
C00002	SPEEN	00141		
X00012	STM.			
X00014	STPRFIL			
C00000	TGTFIL			
C01134	TGTSPEM			
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C00000	IFPASS						
C00002	IFSTGT	04235					
C00005	IFSTVEK	04237					
P05623	IG010	03122					
C00000	IG0000	03150					
C00013	IG000000		05333	05336	05336	35402	05402
C00012	IG000000						
C00000	IG000000						
C00021	IG0000	03412					
C00010	IG0000						
C00007	IG000000						
C00004	IG000000	04236					
C00021	IG0000						
C00050	IG0000						
P05500	IG000000	03277	05505	05522	05525	05537	
P05501	IG000000	03434	05506	05517	05524	05542	
P05502	IG000010	04573	05503	05506	05523	05525	05540
P05503	IG000011	04167	05504	05520	05544	05554	
C00000	IG0000	04215	04215				
P00034	IG000000	00075	04214				
C00003	IG000000	03700	03701	05350	05351		
C00034	IG000000	04630					
C00003	IG000000						
C00024	IG000000	04075					
P05500	IG000000	04174					
C00000	IG000000	04174					
C00074	IG000000	04074	04074				
C00001	IG0000	03115	03115	05031	05031		
C00000	IG000000						
C00000	IG000000	04412	04412				
C00000	IG000000	04074					
C00004	IG000000						
C00017	IG000000						
C00002	IG000000						
C00004	IG000000						
C00000	IG000000						
C00014	IG0000						
C00014	IG0000						
C00003	IG000000						
C00002	IG000000						
C00020	IG000000						
C00007	IG0000	04201					
C00002	IG0000						
C00000	IG000000						

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SATS	P-INTT	12/10/71	EO	C	PAGE NO.	21
K0005	T0005	03524	03566	02604	03-05	04020
K0015	T0015	04062	04124	02141	04-01	04354
K0117	T0117	04374	04444	02510	04-01	04715
K0233	T0233	04774	05011	02572	05-13	05243
K0321	T0321	05254	05320	05374	05-13	05664
K0326	T0326	05304	05374	05374	05-13	05664
K0332	T0332	05374	05472	05472	05-13	05664
K0337	T0337	05472	05570	05570	05-13	05664
K0337	T0337	05570	05664	05664	05-13	05664
K0337	T0337	05664	05758	05758	05-13	05664
K0337	T0337	05758	05856	05856	05-13	05664
K0337	T0337	05856	05954	05954	05-13	05664
K0337	T0337	05954	06052	06052	05-13	05664
K0337	T0337	06052	06150	06150	05-13	05664
K0337	T0337	06150	06248	06248	05-13	05664
K0337	T0337	06248	06346	06346	05-13	05664
K0337	T0337	06346	06444	06444	05-13	05664
K0337	T0337	06444	06542	06542	05-13	05664
K0337	T0337	06542	06640	06640	05-13	05664
K0337	T0337	06640	06738	06738	05-13	05664
K0337	T0337	06738	06836	06836	05-13	05664
K0337	T0337	06836	06934	06934	05-13	05664
K0337	T0337	06934	07032	07032	05-13	05664
K0337	T0337	07032	07130	07130	05-13	05664
K0337	T0337	07130	07228	07228	05-13	05664
K0337	T0337	07228	07326	07326	05-13	05664
K0337	T0337	07326	07424	07424	05-13	05664
K0337	T0337	07424	07522	07522	05-13	05664
K0337	T0337	07522	07620	07620	05-13	05664
K0337	T0337	07620	07718	07718	05-13	05664
K0337	T0337	07718	07816	07816	05-13	05664
K0337	T0337	07816	07914	07914	05-13	05664
K0337	T0337	07914	08012	08012	05-13	05664
K0337	T0337	08012	08110	08110	05-13	05664
K0337	T0337	08110	08208	08208	05-13	05664
K0337	T0337	08208	08306	08306	05-13	05664
K0337	T0337	08306	08404	08404	05-13	05664
K0337	T0337	08404	08502	08502	05-13	05664
K0337	T0337	08502	08600	08600	05-13	05664
K0337	T0337	08600	08698	08698	05-13	05664
K0337	T0337	08698	08796	08796	05-13	05664
K0337	T0337	08796	08894	08894	05-13	05664
K0337	T0337	08894	08992	08992	05-13	05664
K0337	T0337	08992	09090	09090	05-13	05664
K0337	T0337	09090	09188	09188	05-13	05664
K0337	T0337	09188	09286	09286	05-13	05664
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K0337	T0337	09482	09580	09580	05-13	05664
K0337	T0337	09580	09678	09678	05-13	05664
K0337	T0337	09678	09776	09776	05-13	05664
K0337	T0337	09776	09874	09874	05-13	05664
K0337	T0337	09874	09972	09972	05-13	05664
K0337	T0337	09972	10070	10070	05-13	05664
K0337	T0337	10070	10168	10168	05-13	05664
K033						

CO0122	TSK	03167	03206	03221	03240	03273	03310	03323	03670	03642	04327	04473
P05513	JP000000	04577	04577	04602	04607	05-61	05170	05507	05510	05511	05516	05524
P05533	JP000001	05524	03253	03267	03331	03367	03374	03407	03415	03430	03436	03451
		03456	03471	03477	03512	03520	03533	03541	03554	03562	03576	03602
		03610	03650	03674	03725	03741	03746	04010	04015	04030	04034	04051
		04057	04072	04100	04113	04121	04152	04157	04172	04177	04212	04220
		04253	04261	04316	04324	04377	04520	04536	04557	04612	04632	04637
		04652	04660	04700	04764	04707	04713	04725	04733	04747	04754	04757
		04764	04767	04774	05022	05030	05050	05055	05061	05067	05102	05110
		05124	05131	05134	05141	05212	05217	05232	05240	05253	05261	05274
		05302	05315	05323	05334	05334	05335	05336	05342	05343		
P05551	JP000003	04274	04301	04344	04351	04365	04373	04407	04415	04433	04441	04455
		04463	05164	05173	05545	05552	05553	05554	05556			
CO1275	VAL	03177	03177									
CO1244	VAL	03202										
CO1213	VAL	03201										
CO0015	VAL01ST											
CO1554	VALDOME	03232										
CO0016	VALMAX											
CO1605	VALOW	03233										
CO0012	VALSORTY											
CO1142	VALBASE											
CO0622	VALBASE	03762	04675									
P03171	VS00001	03210	03210									
P03223	VS00002	03242	03242									
P03255	VS00003	03262	03262									
P03271	VS00004	03333	03333									
P03301	VS00005	03304	03304									
P03320	VS00006	03325	03325									
P03371	VS00007	03374	03374									
P03411	VS00010	03417	03417									
P03432	VS00011	03440	03440									
P03453	VS00012	03460	03460									
P03473	VS00013	03501	03501									
P03514	VS00014	03522	03522									
P03535	VS00015	03543	03543									
P03556	VS00016	03564	03564									
P03577	VS00017	03603	03603									
P03612	VS00020	03652	03652									
P03636	VS00021	03644	03644									
P03677	VS00022	03727	03727									
P03742	VS00023	03747	03747									
P04002	VS00024	04130	04130									
P04012	VS00025	04017	04017									
P04032	VS00026	04040	04040									
P04053	VS00027	04061	04061									
P04074	VS00030	04102	04102									
P04115	VS00031	04123	04123									
P04153	VS00032	04140	04140									
P04173	VS00033	04200	04200									
P04213	VS00034	04221	04221									
P04254	VS00035	04262	04262									

SATS PRINT

P04274	*S00036	04302	04353
P04344	*S00037	04353	04376
P04367	*S00040	04376	04417
P04411	*S00041	04417	04443
P04435	*S00042	04443	04465
P04457	*S00043	04465	04540
P04522	*S00044	04540	
P04573	*S00045	04540	
P04603	*S00046	04610	04614
P04561	*S00047	04614	04641
P04634	*S00050	04641	04662
P04654	*S00051	04662	
P04701	*S00052	04705	
P04710	*S00053	04714	
P04727	*S00054	04735	
P04750	*S00055		
P04760	*S00056	04765	
P04770	*S00057	04775	
P05024	*S00060	04832	05032
P05052	*S00061	05057	05057
P05063	*S00062	05071	05071
P05104	*S00063	05112	05112
P05125	*S00064	05132	
P05135	*S00065	05142	
P05167	*S00066	05174	
P05163	*S00067	05200	05200
P05214	*S00070	05221	05221
P05234	*S00071	05242	05242
P05255	*S00072	05263	05263
P05276	*S00073	05304	04304
P05317	*S00074	05325	05325
P05340	*S00075	05363	05363
P05445	*S00076	05405	05405
C09007	VIFLN		

01224 SYMBOLS

S.4TS PRATE

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

PRATE	IDENT	PRATE
01707	00743	
00024		COMPILOP
00034		PRATE
00001		WUNCHECK
00147		3
00021		EVAL
00007		INDEX
01751		SORTYGT
00014		LEFT PT
00002		SKIP
00021		CUSSEITY
00022		SAFETY
01370		WUNCHECK
01445		WUNCHECK
00005		ALTBESS
00011		CURRIN
00002		ANALYZE
00007		PCALL
00025		FLAR
00550		DEMO
		DATE

EXTERNAL SYMBOLS

03000000
IMC
SUBJECT
TIME
ST
GASL-EL

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C00015	ADOLPH	01217							
C00025	ADOLFST	01314							
C00004	ALERTLY								
C00000	ALERTLY								
C00020	ALERTLY	01254							
C00001	ALFRED	01053							
C00090	ALFRED	01053							
C00021	ALFRED	01255							
C01357	ALFRED	01412							
C01027	ALFRED	01332							
C00006	ALFRED	01123							
C00013	ALFRED								
C17027	ALFRED	01330							
C00026	ALFRED	01104							
C00005	ALFRED	01455							
P01546	ALFRED								
C00260	ALFRED								
C00466	ALFRED								
C00002	ALFRED								
C00090	ALFRED								
C01097	ALFRED								
C00001	ALFRED								
C33737	ALFRED								
P01545	ALFRED								
C00011	ALFRED	00774	00774	01030	01040	01042	01045	01046	01047
C00012	ALFRED	01045	01057	01057	01077	01101	01105	01106	01105
P01647	ALFRED	01124	01124	01130	01153	01163	01164	01166	01170
P00003	ALFRED	01177	01201	01203	01214	01216	01217	01220	01222
C00014	ALFRED	01251	01253	01254	01255	01256	01259	01261	01263
C00013	ALFRED	01303	01305	01307	01311	01312	01313	01314	01324
C00002	ALFRED	01334	01334	01341	01352	01354	01375	01377	01402
C00032	ALFRED	01404	01417	01416	01411	01412	01413	01416	01415
C00007	ALFRED	01504	01504	01510	01521	01523	01525	01526	
C00011	ALFRED	01142	01142	01174	01174				
C00012	ALFRED	01433	01434	01455	01456				
P01647	ALFRED	01051	01053	01052	01071	01111	01133	01156	01200
P00003	ALFRED	01317	01344	01357	01424	01513	01531		
C00014	ALFRED	01215	01215						
C00013	ALFRED	01202	01202						
C00002	ALFRED								
C00032	ALFRED								
C00007	ALFRED								
C00011	ALFRED	01745	01754	00774	01000	01025	01132	01045	01045
C00012	ALFRED	01110	01114	01132	01150	01155	01160	01161	01161
C00024	ALFRED	01242	01270	01274	01314	01322	01343	01347	01350
C00003	ALFRED	01512	01515	01530	01540	01551	01552	01372	01372
C00014	ALFRED	01210	01210						
C00032	ALFRED								
C00024	ALFRED	01312							
C00003	ALFRED	01104							
C00011	ALFRED								
C00014	ALFRED	01125	01125						

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IDENT DEFASCT

00564
00236
00025
00022
01751
01370
40167
04230
04504
00007
00016
00214
00003
00002
00025
00005

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

REFASCT
PRINTOPT
SORTYPE
SORTYGT
GAPLILA
3
2
CUR-IR
INDEL
INITPT
CUR-RTV
VAL
PCALC
DE-
TODS
CROUCCI.
PRIORITY
TODS-RT
SORT-RT
DUS-RT

EXTERNAL SYMBOLS

5.410 444-0001

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00001 000000
00002 000000
00003 000000
00004 000000
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STATS DEPARTMENT

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CO0004	10000								
CO0005	10001								
CO0006	10002								
CO0007	10003								
CO0008	10004								
CO0009	10005								
CO0010	10006								
CO0011	10007								
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CO0195	10191								
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CO0197	10193								
CO0198	10194								
CO0199	10195								
CO0200	10196								

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5.415 SETFLAG

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

SETFLAG

END OF TA
IOWA
PCALL
DATA
FLAT

EXTERNAL SYMBOLS

TEMP.
C3K1040
UNSUBCT.
TSM.
STM.
DISTINGL.

INSTR

00257
00030
01370
00007
00002
00550
00007

SETFLAG

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5.ATS SETFLAG

P00006	..3	00044	00104	00111	00236				
P00027	..5	00057							
P00032	..R	00102							
P00251	..NSTIFF.	00202	00064						
P00256	J	00061							
C00006	JTGTIN								
C00360	LCOMP	00150	00153	00153					
C00454	LGRCLP	00143	00146	00146					
C00264	LPASS	00155	00160	00160					
C00170	LSISORT	00162	00176	00176					
C00011	NRASE								
P00004	NC	00052	00073	00116	00122	00123	00137	00224	
C00002	NVEHGRP								
C00001	NWPKS								
P00216	P00000.U	00220							
P00230	P00001.U	00233							
P00005	PMAX	00006	00126						
X00002	Q3010000	00133	00204						
X00003	QRODICT.	00009	00036						
X00006	QNSIMGL	00210							
P00214	RELCON..	00244							
P00035	SETFLAG	00035							
X00005	STM.	00044	00100						
X00001	TMEAN.	00047	00071	00114					
P00136	TS00004.	00127							
P00297	TS00005.	00140							
X00004	TSM.	00055							
P00222	UPSC000.	00053	00117	00124	00213	00216	00223	00225	00227
P00235	UPSC0001.	00062	00067	00105	00112	00231	00236	00240	00242
C00142	VDMRASE								
P00051	WS00001.	00120							
P00063	WS00002.	00070							
P00104	WS00003.	00113							
P00132	WS00004.	00135							
P00143	WS00005.	00206							
C00007	YIELD								
	00132 SYTHOLS								

CSUHR	SUBROUTINE SORTPT	1600
CUSE	SORTPT 11/10/71	22000
	PRINTPT 9/10/69	1000
	COMMON/COMMON/ISRTPT,ICUSHTY,ICURHAI,ISRTCP,ICVAL,	1000
	1 IRABUS,ICUGELA,INITPT,INDEX,IGTASUN,	2000
	2 IGRPTPT,IGRPTA,ICORCA,ISTP,ICOMSHR,	3000
	3 ICCPIPT,ICAFIELT,ICERUG,ICFUEL,ICUTPT,ICAYLOA,	4000
CEND	ENDPTPT	2000
C	OPTIMIZES SPECIFEN SORTPT	6000
CUSE	CHGLAR 9/10/69	7000
	COMMON/COMMON/JDC,IAI,ISCAN,JAET,ATC,OTA,HTC,OTL	1000
	TYPE INTEGER ITO,OTA,HTC,OTL	2000
CEND	CHGLAR	7000
	DATA (A,OEI), (OTAEPT, (OTER), (OTRE4)	9000
CUSE	INDEX 9/10/69	10000
	COMMON/COMMON/ISCTY,IOI,IG,ICOVEN,IOICH,IT,ICORR,ITETA	1000
CEND	INDEX	10000
CUSE	GRPTYPE 11/27/71	11000
	COMMON/COMMON/ISTPTYPE,RANGE,CEP,SPEED,ALERTULY,NALNTOLY,RANGEDEC	1000
	1 .ICLASS,ICPERSON,SPONT,SPOLO,SPDAS,MANREF,NBPSITE,IMED	2000
	2 .ICACONE,ICEMORE,FUNCTION	3000
	TYPE INTEGER FUNCTION	3500
	TYPE REAL NALNTOLY	4000
CEND	GRPTYPE	11000
CUSE	CONTRL 9/10/69	15000
	COMMON/COMMON/CEPSILON,VALSRT	1000
CEND	CONTRL	15000
	DATA (EPSILON, (VALSRT))	16000
CUSE	COMMON/COMMON/VALSRT	17000
	1 LASTPT, LASTTGT, NMIT, IOMIT (25), NAVAIL, IAVAIL (25)	1000
	2 .ICLIMT (25), IICLO, IOSTTGT (25), ILOSTTGT, NWDO, NASMS, RINGAS	2000
	3 .IUST	3000
CEND	COMMON/COMMON/VALSRT	4000
CUSE	SORTPT 9/10/69	17000
	COMMON/COMMON/VALSRT, VALSRT (25), VAL (25), VAL (25), VAL (25),	21000
	1 VAL (25), VAL (25), VAL (25), VAL (25), VAL (25), VAL (25), VAL (25),	2000
	2 VAL (25), VAL (25), VAL (25), VAL (25), VAL (25), VAL (25), VAL (25),	3000
	SORTPTGT	21000
CEND	FINAL 2/27/71	23500
CUSE	COMMON/COMMON/VALSRT (1100), IUST (1100), IUST (1100)	1000
	TYPE LOGICAL IUST, IUST, IUST	2000
CEND	FINAL	23500
	DATA 9/10/69	24000
CUSE	COMMON/COMMON/VALSRT, VALSRT (25), VAL (25), VAL (25), VAL (25),	1000
	1 JACON, VALSRT, JAF, VALC, VALTST, VALMAR, JSEDER, ISPINL	2000
	TYPE REAL MIN, MARA, IMA, MAROR, MARAR	3000
CEND	VAL	24000
CUSE	VAL 9/10/69	27000
	COMMON/COMMON/VALSRT, VALSRT (25), VAL (25), VAL (25), VAL (25),	1000
CEND	VAL	27000
CUSE	DERUG 9/10/69	28000
	COMMON/COMMON/VALSRT, VALSRT (25), VAL (25), VAL (25), VAL (25),	1000
CEND	DERUG	28000
	PCALL 9/10/69	29000
CUSE	COMMON/COMMON/VALSRT, VALSRT (25), VAL (25), VAL (25), VAL (25),	1000

```

CEND          PCALL          *****
IOTA=IOTA+1
ICAMFROM(IOTA)=8M SORTOPT
ICALL=30
CALL PRINTII(IDEBUG)
ENTRY SORTOPT
TEXT=0
VALSORT=0.0
KNTSEG=-3
10 OLDVAL=VALSORT
ICALL=146
CALL PRINTII(IRSTKCPH)
15 CALL FLTPLAN
EPSVAL=EPSILO=VALSORT
IF (NUMAS=LT=NUMAS)20,30
C*** CONSIDER USING ASMS IN PLACE OF 50MS
20 ISCANLASTGT
CALL EVALN
IF (JADA) 25,30
25 J02=JADA $ JAF=JAF
ICALL=101
CALL PRINTII(ISRTYGT)
CALL PRINTII(ICURSRTY)
CALL CHGPLAN(IOTA)
CALL CHGPLAN(IOTA)
ICALL=102
CALL PRINTII(ISRTYGT)
CALL PRINTII(ICURSRTY)
GO TO 10
30 IF (NUMAS=GT=NUMAS) 40,50
40 ISCANLASTGT
C*** SET ISCAN TO POSTPONE CHANGE IN RECOVERY,DELETE EXTRA ROWS
CALL EVALN
J02=J02L
CALL CHGPLAN(IOTA)
GO TO 10
50 ISCAN=LASTPAY
IF (MUSTREC)52,54
52 ISCANLASTGT
C*** CONSIDER OMITTING ROWS ON RECOVERY
54 ICALL=147
CALL PRINTII(IRSTKCPH)
60 CALL EVALN
IF (MNR=LT=EPSVAL) 70,103
70 J02=J02L $ JAF=JAF$ (IMT(LN(IOTA)-1))
CALL CHGPLAN(IOTA)
C***
C*****CORRECT ANY TGT OMITTED BY EPSION
OLDVAL=VALSORT
CALL FLTPLAN
EPSVAL=EPSILO=VALSORT
IF (VALSORT=LT=OLDVAL) 72,50
C AVOID REPLACING TGTs WHOSE CRISISID DID NOT RAISE VALSORT
C IF THEY ARE BEYOND RANGE OF SORTIE TO BEGIN WITH (500)
72 IF (STJDEL)173,50
73 JAF=JAF$TX

```

```

CALL CMPLAN(OTB)
CALL FLTPLAN
FMSVAL=EPSILOVALSORT
103 CONTINUE
C***
C***** FLIGHT POINTS WITH S=0
IF (LASTCY .GT. 11730.735)
730 CONTINUE
102
DO 734 WK=2, LASTPAY
  J=FLY(1)
  IF (SLD) .GT. 0.0000001734.731
731 CONTINUE
  IF (LIFT(1) .GT. 0.732.733)
732 CONTINUE
  J=J+1
  CALL CMPLAN(HTO)
  I=I+1
  GO TO 734
733 CONTINUE
  J=J+1
  CALL CMPLAN(ATO)
  I=I+1
734 I=I+1
  ISCAN=LASTTOT
  CALL EVALM
735 CONTINUE
  IF (NOMIT-1)121,104,105
104 IF (NOMIT-1)EQ,INCOVER) 121,105
105 IF (NUMCOMP-1)NUMS-WAS,S) 104,107
106 WTS=0.0
107 IF (WAS,S)GT,0) 100,121
C*** CONSIDER SMS ON OMITTED TATS
109 KALC=0
110 CALL EVALOA
  KALC = 1
  IF (WAS,S)GT,0)INDA=FPSVAL) 120,120C
120 IF (NUMAS,M)E-M,SMS) 121,120B
1200 IF (J=1)1203,1202
1203 J=J+1
  CALL CMPLAN(HTO)
  CALL CMPLAN(ATO)
  J=J+1
  CALL CMPLAN(CTB)
  VALSORT=VALSORT+INDA-INDA
  GO TO 110
1202 IF (I=1) 100,121
C***
C*** CHECK TOT GROUP--OMIT TATS IN -RONE ORDER
121 IF (KATSEC) 220,125,126
220 IF (JSEGER) 225,125
225 KATSEC=NTSEC+1
1220 IF (KATSEC)125,122
122 J=J+1
  IF (LIFT(LIMIT(I)-1))123,1230,124
123 CALL CMPLAN(CTC)
  GO TO 1240

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[illegible]

FIN5.5

```
CALL PRINTIT(ICURSRTY)
ICALL=31
CALL PRINTIT(ISRTYTOT)
ICALL=33
CALL PRINTIT(ICURRAIG)
INTA=IOTA-1
RETURN
END
```

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PAGE NO.

5

166000
167000
168000
169000
170000
171000
172000
173000

5.415 SORTOPT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

INENT SORTOPT

00001
00014
00025
00010
00007
00022
00002
00014
01751
00107
00021
00003
00025
00002SORTOPT
PRINTOPT
CHGPLAN
INDEX
GRPTYPE
COMT40L
CURSORITY
SORTYGT
FIXALL
EVAL
VAL
DEB6
PCALLEXTERNAL SYMBOLS
Q3000040
THEN
UNPUNCT.
PRINTIT
FLTPCAN
EVAL
CHGPLAN
EVAL0A
ABOUT
EVAL0B
STA.

5-ATS Summary

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6

EN

6

C00004	IFLY	00224	00224						
C00013	IGRDATA								
C00012	IGRSTYPE								
C00021	IMIT								
C00010	IMUER								
C00007	INITCST								
C00000	IPFIX								
C00003	IPFIX								
C00104	IPFIX								
C00020	INEXTFLT								
C00022	INITIAL								
C00041	INIT								
C00001	IOBIS								
C00009	IOFA								
C00000	IPASS								
C00020	IPENCODE								
C00005	IRAINSW								
C00017	IRECMONE								
C00002	IRECOVER								
C00014	IREP								
C00003	ISSTKCPW								
C00002	ISCAN								
C00020	ISFIMPLA								
C00000	ISIMTYPE								
C00000	ISOMIV								
C00000	ISOTVST								
C00015	ISTKSUM								
C00004	IT								
C00011	ITATASGA								
C00155	ITOLN								
C00036	.10								
C00215	.103								
C00271	.104								
C00274	.105								
C00277	.106								
C00301	.107								
C00304	.109								
C00306	.110								
C00315	.120								
C00320	.1200								
C00327	.1201								
C00341	.1202								
C00322	.1203								
C00343	.121								
C00352	.122								
C00354	.122								
C00364	.123								
C00372	.1230								
C00402	.124								
C00405	.1240								
C00420	.1242								
C00422	.1244								
C00431	.125								

SATS SORTOPT

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C

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C00023	OUTSET	00513	00513	00514	00555	00555	00555	00554		
C00024	JPAYLOAD									
C00025	JREFUEL									
C00017	USERPRM	00344	00344	00352	00352	00356	00356			
C00006	JTGITA									
C00014	KALC	00304	00305	00310	00311					
P00636	KK	00222	00251							
P00637	KNTSEC	00035	00343	00350	00351					
C00001	KALSHI									
C00036	LASTRAY	00132	00132	00215	00215	00260	00260	00414	00414	
C00037	LASTTGT	00055	00055	00120	00120	00134	00136	00282	00420	00441
C00124	LIMIT	00154	00155	00350	00361	00514	00515			
C00156	LOSTTGT									
C00002	MAXDA	00311	00337							
C00010	MAXDA									
C00006	MAXDA	00470	00470							
C00000	MAXPT									
C00000	MINA	00147	00147	00271	00300	00437	00440	00467	00467	00471
C00004	MI-DA	00312	00337							
C00001	MUSTDEC	00134	00134	00410	00414					
C00021	MYPTGT									
C00005	NALMOLY									
C00211	NASMS	00053	00111	00275	00301	00301	00310	00531	00573	
C00072	NAVAIL									
C00003	NKIT									
C00207	NLOSTTGT									
C00015	NLOSIVE									
C00040	NOMIT	00264	00264	00431	00431					
C00010	NOPEMSEA									
C00002	NOMASW	00052	00052	00315	00315	00435	00441	00535	00572	00530
C00001	NOM-OWR	00115	00115	00274	00274	00434	00434	00460	00504	
C00000	NUM-IT	00530								
C00210	NAMES	00114	00274	00435	00461	00505	00531			
P00240	OLDVAL	00037	00167	00170	00540	00547				
C00005	OTA	C00005	00104	00335						
C00007	OTH	C00007	00207	00503	00562					
X00004	PRINTIT	00024	00042	00071	00074	00106	00111	00142	00426	00445
		00000	00404	00610	00614					00453
X00001	Q3000040	00353								
X00003	QRODICT.	00000								
C00001	RANGE									
C00006	RANGEDEC									
C00014	RANGREF									
C01326	RHOJ									
C00212	RNGASW									
C01472	S									
P00014	SORTOPT	00201	00201	00220	00227					
C00011	SPDASH	00014								
C00011	SPONI									
C00002	SPOLO									
C00003	SPEED									
X00013	STM.	00373								

5.4TS SORTOPT

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11

CO1523 SURV
XG0002 TEND.
000260 TS00001.
CO1275 V
CO1244 VALA
CO1213 VALR
CO0015 VALCIST
CO1554 VALDOME
CO0016 VALMAX
CO1605 VALON
CO0000 VALRECVR
CO0012 VALSORTV

CO0002 VUNLOAN
PO0223 W000001.
00332 SYBOLS

00376
00222

00033
00175
00544

00033
00213

00030
00213

00034
00334

00050
00336

00050
00340

00166
00537

00166
00537

00173
00544

00173
00544

00175
00546

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```

SUMROUTINE TGTASGN
CEND
CUSE
  TGTASGN 2AFERT1
  A-AYSIZE 9/10/69
  COMMON/ANAYSIZE/ANASERG,PC,T,ALASIS,ASRTV,ASRT,FLY,MAPA
  ANAYSIZE
  PRINTPT 9/10/69
  COMMON/PRINTPT/ISRTVET,ICUSRTV,ICORAD,INSTCOW,IEVAL,
  1 TRADSH,ICORPLAN,INITPT,ILHREA,ITGTASGN,
  2 IGPYTYE,ICORDATA,ICORCAP,ISTH-SUM,ICORSHR,
  3 IGPYTYE,ICORFELT,ICORCAP,ISTH-SUM,ICORSHR,
  TGTASGN 9/10/69
  COMMON/TGTASGN/TGTASGN,TGTLINE,TGT,IFSTGT,ILSTGT,IFSTVEM,LSVEM,
  1 ISIDE
  TGTASGN 9/10/69
  INFA 9/10/69
  COMMON/INFA/ISQTY,IOBIS,IMECOVEM,ITICM,ITICORR,JTGILN
  INFA
  CURRAD IFERT1
  COMMON/CURRAD/MYBASE(100),NASGN(100),JTG(10,100),MYASGN(1100),
  1 INNEVEM(100)
  CURRAD
  COMMON/77/PHI(1100),RMO(1100)
  4 IFERT1
  COMMON/4/ISEB(1100)
  4
  RADSYRM IFERT1
  COMMON/3/NT,JG-CUP,JCORR,INDEXNO(1100),FLAT(1100),TLOG(1100),
  1 TIMEPHE(1100),IDEN(1100),DISTOUT(1100),DISTREC(1100),
  2 ZATLOC(1100),VAL(1100),DELAT(1100),ORLONG(1100),NESIG(1100),
  3 TASK(1100),CNTVLOC(1100),FLAG(1100)
  RADSTAK
  CHANGED COMMON/RATESTAK/ TO COMMON/3/
  FIXALL 2FERT1
  COMMON/FIXALL/IFIX(1100),JFIX(1100),KFIX(125)
  TYPE LOGICAL IJFL,IFLIR,IKFI
  FIXALL
  RADSHR 9/10/69
  COMMON/RADSHR/NVEM(200),OISTH(200),NV,PHASE,
  1 NPV(200),NPC,TGTSRMD,NASMP(200)
  TYPE INTERP VPHASE
  RADSHR
  IFSRCH 9/10/69
  COMMON/IFSRCH/IFSRCH
  IFSRCH
  DEMUG 9/10/69
  COMMON/DEMUG/INTA,ICAFROM(20)
  DEMUG
  PCAL 9/10/69
  COMMON/PCAL/IPASS,ICALL
  PCAL
  INTAINTA=1
  ICACFOM(100)=0
  TGTASGN
  ICALL=12
  CALL PRINTIT(IEBUR)
  ICALL=129

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```

WRITE(1-12,C,PARMSIZE)
ICALL=143
CALL PRINTIT(ICUMPAID)
CALL PRINTIT(STRCPM)
CALL PRINTIT(ITGTASGN)
IFSTGT=IFSTGT + ILASTGT+LSTVEM
CARRY OUT INITIAL ASSIGNMENT
DO 100 I=1,IFSTGT+LSTVEM
  NFI=0
  NFI=MAX(0,IFSTGT+LSTVEM-IFSTGT)
  IF(I-1) 100,100,100
  GO TO (12,2) 100,100
C ALTERNATE SORTIE ASSIGNMENT BETWEEN (0) AND BOTTOM OF LIST. MEET IN M
C ASSIGN LAST SORTIE LAST JMS
  2  ISRT = ILASTGT
  N = MAX(0,ISRT)
  3  IF (N) ILASTGT = ILASTGT - 1
  4  ILASTGT = ILASTGT - 1
  IF (ILASTGT-IFSTGT) 149,13,3
149 ILASTGT=IFSTGT
  ICALL=144
  CALL PRINTIT(ICUMPAID)
  CALL PRINTIT(STRCPM)
  CALL PRINTIT(ITGTASGN)
150 IF (IFSTGT-IFSTGT) 100,100
152 IFSTGT = ILASTGT + 1
  GO TO 3
  5  IT = ILASTGT
  6  IF (N) ILASTGT = ILASTGT - 1
  7  ASSIGN = 10
  GO TO 10
  8  IT = IT - 1
  ICALL=145
  CALL PRINTIT(ICUMPAID)
  CALL PRINTIT(STRCPM)
  CALL PRINTIT(ITGTASGN)
  IF (IT-IFSTGT) 100,100
C ASSIGN FIRST SORTIE FIRST WEAPONS
  12  ISRT = IFSTGT
  N = MAX(0,ISRT)
  IFSTGT = IFSTGT + 1
  13  IF (N) ILASTGT = ILASTGT - 1
  14  IFSTGT = IFSTGT + 1
  IF (IFSTGT-ILASTGT) 13,13,13
130 IFSTGT=ILASTGT
140 IF (IFSTGT-IFSTGT) 100,100
142 IFSTGT = ILASTGT + 1
  ICALL=146
  CALL PRINTIT(ICUMPAID)
  CALL PRINTIT(STRCPM)
  CALL PRINTIT(ITGTASGN)
  GO TO 13
  15  IT = IFSTGT
  16  IF (N) ILASTGT = ILASTGT - 1
  17  ASSIGN = 10
  GO TO 10

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12/10/71

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      GO TO 19
18  IT = IT + 1
    CALL PRINTIT(ICURRAID)
    CALL PRINTIT(I4STNCPM)
    CALL PRINTIT(ITGTASGN)
    IF (IT,LE,ILJSTGT) 1A, 100
C ** ENTRY INSERT
19  J = IT
    MYASGN(IT)=0
20  DO 30 ISTRK=1,M
    IF (INDEXNO(J).EQ,INDEXNO(JTGT(ISTRK,ISRT))) 90, 35
    SKIP IF SAME TARGET IN SORTIE
C
30  CONTINUE
    IF (NFI,GE,NMVEN) 90,31
31  CONTINUE
    TESTS OK SO ASSIGN STRIKE TO SORTIE
C ***
    MYASGN(J)=1
    IF (I,LE,I4STGT) 310,311
310  NFI=NFI+1
311  CONTINUE
C
32  DO 40 ISTRK=1,M
    ITMP=JTGT(ISTRK,ISRT)
    IF (INDEXNO(J).LT,INDEXNO(ITMP)) 35,40
35  JTGT(ISTRK,ISRT)=J
    J=ITMP
40  CONTINUE
    INSERT TARGET IN SORTIE IN ORDER OF RPO
C
41  ADD REMAINING STRIKE AT END OF LIST
    ICALL=130
    MMSIZE=(12,0,8*ARRAYSIZE)
    IF (N,EO,NSTRK) 60,50
50  N=N+1
    JTGT(N,ISRT)=J
    IGTASGN=IGTASGN + 1.0
    IF (IGTASGN,GT,ISTLLM) 100,90
90  GO TO LVIASENT
100  MASON(ISRT) = 1
    CALL TIMEPE(1)
    CALL I4STGT(I4STNCPM)
    ICALL=60
    CALL PRINTIT(CURRAID)
    ICALL=14
    CALL PRINTIT(ITGTASGN)
    IOTASOTA=1
    RETURN
    END

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5.4TS TGTASGN

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ED 9

PAGE NO. 4

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IDENT TGTASGN

00523
C000A

TGTASGN

ARVSIZE
PRINTOPT
TGTASGN
INDEX
CURMAID
2
4
3
FIXALL
RAIDSHR
IRESCH
DERUS
PCALL

EXTERNAL SYMBOLS

Q3000000
Q0000000
PRINTIT
PRNTF
TIME

12/19/71

C00000 IPASS
 C00005 IRANSWP
 C00007 IRECOVER
 C00020 IRESWCM
 C00003 IRTKCPW
 C00090 ISEU
 P00511 ISFCSST
 C00007 ISIDE
 C00000 ISOMTY
 P00512 ISRT
 C00000 ISRTVTGT
 P00513 ISTAK
 C00015 ISTAKSUW
 C00004 IT

 P00514 ITCWP
 C00011 ITCFASGA
 P00403 -100
 P00171 -12
 P00202 -13
 P00212 -13a
 P00205 -14
 P00214 -14a
 P00214 -14b
 P00214 -14c
 P00114 -15
 P00130 -15a
 P00237 -15
 P00132 -152
 P00241 -16
 P00245 -17
 P00247 -18
 P00278 -19
 P00073 -2
 P00275 -2a
 P00104 -3
 P00311 -3a
 P00320 -31
 P00326 -31a
 P00330 -311
 P00330 -32
 P00345 -35
 P00110 -4
 P00351 -4a
 P00140 -5
 P00365 -5a
 P00142 -6
 P00372 -6a
 P00146 -7
 P00146 -7a
 P00150 -8
 P00400 -8a
 P00475 -8a
 P00003 -100000
 P00004 -100001
 P00005 -100002

00130 00130 00136 00214 00214 00222 00222
 00124 00161 00232 00260 00260 00260
 00055 00055 00055 00055 00055 00055
 00074 00074 00172 00174 00174 00174
 00311 00311 00311 00311 00311 00311
 00141 00141 00142 00142 00150 00150
 00241 00241 00247 00247 00250 00250
 00337 00337 00337 00337 00337 00337
 00044 00044 00164 00235 00263 00263
 00131 00131 00215 00266 00266 00266
 00072 00072 00211 00230 00230 00230
 00210 00210 00211 00230 00230 00230

 00113 00204 00205 00267 00267 00267
 00243 00243 00245 00245 00245 00245
 00147 00147 00147 00147 00147 00147

 00112 00113 00137 00137 00137 00137
 00310 00310 00316 00316 00316 00316
 00325 00325 00325 00325 00325 00325

 00343 00344 00344 00344 00344 00344
 00104 00107 00107 00107 00107 00107
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